DOCUMENT RESUME

ED 213 749 TM 820 159

AUTHOR	Orvaschel, Helen; And Others
TITLE	The Assessment of Psychopathology and Behavioral Problems in Children: A Review of Scales Suitable for Epidemiological and Clinical Research (1967-1979). Mental Health Service System Reports, Series AN: Epidemiology, No. 1.
INSTITUTION	Yale Univ., New Haven, CT. School of Medicine.
SPONS AGENCY	National Inst. of Mental Health (DHHS/PHS), Rockville, Md. Div. of Biometry and Epidemiology.
REPORT NO	DHHS-ADM-80-1037
PUB DATE	80
CONTRACT	ADM-42-74-83(DBE)
NOTE	101p.; Paper copy not available due to small print.
AVAILABLE FROM	Alcohol, Drug Abuse, and Mental Health Administration, Printing and Publications Management Branch, 5600 Fishers Lane (Rm. 6C-02), Rockville, MD 20857.
EDRS PRICE	MF01 Plus Postage. PC Not Available from EDRS.
DESCRIPTORS	*Behavior Problems; *Behavior Rating Scales; Elementary Secondary Education; Preschool Education; *Psychopathology; *Screening Tests; Test Reviews
IDENTIFIERS	*Epidemiology; *Test Appropriateness

ABSTRACT

Forty-four scales are described that access psychopathology and/or behavior problems in children (under 18 years of age). Excluded are tests of intelligence, intellectual functioning, brain development, cognitive development, perception, and projective tests. Scales included in this review are suitable for clinical and epidemiological research, are current (reported since 1967), have been used in at least one research study, have undergone some testing as to feasibility, and have some available psychometric data. The scales are divided into psychiatric interviews, general psychopathology scales, specific syndrome scales (hyperactivity, anxiety, depression, fear), and brief reports of miscellaneous scales. Each scale is reviewed as to its purpose, method of obtaining information, informant, scale properties, content, and psychometric properties (extracted in summary in a table for ease of review). Relevant references are cited after the description of each scale. (Author/GK)

****
* Reproductions supplied by EDRS are the best that can be made *
* from the original document. *
****

ED213749

U.S. DEPARTMENT OF EDUCATION
NATIONAL INSTITUTE OF EDUCATION
EDUCATIONAL RESOURCES INFORMATION CENTER (ERIC)

☒ This document has been reproduced as received from the person or organization originating it.

☐ Minor changes have been made to improve reproduction quality.

• Points of view or opinions stated in this document do not necessarily represent official NIE position or policy.

MENTAL HEALTH SERVICE SYSTEM REPORTS

SERIES AN:
Epidemiology

U.S. DEPARTMENT OF HEALTH AND HUMAN SERVICES
Public Health Service
Alcohol, Drug Abuse, and Mental Health Administration
National Institute of Mental Health

Series AN No. 1

The Assessment of Psychopathology and Behavioral Problems in Children:

A Review of Scales Suitable for Epidemiological and Clinical Research (1967-1979)

MENTAL HEALTH SERVICE SYSTEM REPORTS

The Assessment of Psychopathology and Behavioral Problems in Children:

A Review of Scales Suitable for Epidemiological and Clinical Research (1967-1979)

Helen Orvaschel, Ph.D.
Diane Sholomskas, M.A.
Myrna M. Weissman, Ph.D.

Yale University School of Medicine
Department of Psychiatry
Depression Research Unit
New Haven, Connecticut

U.S. DEPARTMENT OF HEALTH AND HUMAN SERVICES
Public Health Service
Alcohol, Drug Abuse, and Mental Health Administration

National Institute of Mental Health
Division of Biometry and Epidemiology
5600 Fishers Lane
Rockville, Maryland 20857

3

This publication was prepared under contract number ADM 42-74-83(DBE) from the Center for Epidemiologic Studies, National Institute of Mental Health. The material contained herein does not necessarily reflect the opinions, official policy, or position of the National Institute of Mental Health, Alcohol, Drug Abuse, and Mental Health Administration, Public Health Service, or the U.S. Department of Health and Human Services.

Suggested Citation

National Institute of Mental Health, Series AN No. 1. The Assessment of Psychopathology and Behavioral Problems in Children: A Review of Scales Suitable for Epidemiological and Clinical Research (1967-1979). DHHS Publication No. (ADM)80-1037, Superintendent of Documents, U.S. Government Printing Office, Washington, DC 20402, 1980.

DHHS Publication No. (ADM)80-1037
Printed 1980

FOREWORD

This monograph is one in a series of monographs initiated by the Division of Biometry and Epidemiology as part of its efforts to keep the scientific community abreast of current developments in mental health research.

The summarization of the 44 scales in tables 1-3 allows an interested investigator to ascertain that scale with properties most suitable to a given study group. As the authors of this monograph state, however, the child assessment field is a rapidly growing one, and investigators are urged to contact the developer of a scale prior to its use. A list of scale developers with addresses and telephone numbers is included in the monograph.

The Division of Biometry and Epidemiology (DBE) intends to assist the field in the development of a scale suitable for large scale epidemiologic studies of children and adolescents. In 1977 DBE initiated a major program to assess the treated and untreated prevalence and incidence of specific psychiatric disorders in the general population aged 18 and over. To accomplish this, a new scale, the Diagnostic Interview Schedule (DIS), was developed with assistance from DBE. Action has been taken by DBE to develop a DIS appropriate to children (DISC).

The Center for Epidemiologic Studies recognizes the need, however, for a diversity of scales and approaches by researchers in the attempt to understand psychopathology and behavioral problems in children. To those engaged in the development of scales and to those engaged in the use of such scales, best wishes for success are extended.

Ben Z. Locke, Chief
Center for Epidemiologic Studies
Division of Biometry & Epidemiology
National Institute of Mental Health

LIST OF SCALE DEVELOPERS

Diagnostic Interview for Children and Adolescents

Barbara Herjanic, M.D.
St. Louis Children's Hospital
500 South Kings Highway Boulevard
P.O. Box 14871
St. Louis, Missouri 63178
Phone: (314) 367-6880, Ext. 353

Mental Health Assessment Form

Clauice Kestenbaum, M.D.
Hector Bird, M.D.
Division of Child Psychiatry
St. Luke's Hospital Center
411 West 114th Street
New York, New York 10027

Interview Schedule for Children and Children's Depression Inventory

Marika Kovacs, Ph.D.
Western Psychiatric Institute
3811 O'Hara Street
Pittsburgh, Pennsylvania 15261
Phone: (412) 624-2043

Screening Inventory

Thomas Langner, Ph.D.
Columbia University
School of Public Health
Social Psychiatry Research Unit
100 Haven Ave., Tower 3-19H
New York, New York 10032
Phone: (212) 795-0211

Kiddie-SADS

Kim Puig-Antich, M.D.
New York State Psychiatric Institute
722 West 168th Street
New York, New York 10032
Phone: (212) 586-4000, Ext: 249

Child Behavior Checklist

Thomas Achenbach, Ph.D.
National Institute of Mental Health
Laboratory of Developmental Psychology
9000 Rockville Pike, Building 15K
Bethesda, Maryland 20014
Phone: (301) 496-4431/4432

Childhood Personality Scale

Donald Cohen, M.D.
Yale University School of Medicine
Child Study Center
333 Cedar Street
New Haven, Connecticut 06510

Parent Questionnaire and Teacher Questionnaire

Keith Conners, Ph.D.
Children's Hospital National Medical Center
111 Michigan Avenue, N.W.
Washington, D.C. 20010

Children's Affective Rating Scale

Leon Cytryn, M.D.
National Institute of Mental Health
Biological Psychiatry Branch
Building 10, Room 2N210
Bethesda, Maryland 20205
Phone: (301) 496-3333

Minnesota Child Development Inventory

Harold Ireton
University of Minnesota Medical Center
Box 393
Mayo Memorial Building
Minneapolis, Minnesota

Symptom Checklist

Martin Kohn
White Institute
20 West 74th Street
New York, New York 10023

Hyperactivity and Withdrawal Scale

Richard Bell
Child Research Branch
National Institute of Mental Health
Building 15K
9000 Rockville Pike
Bethesda, Maryland 20014
Phone: (301) 496-1091

Louisville Behavior Checklist

Lovick Miller
Child Psychiatry Research Center
University of Louisville
P.O. Box 1055
608 South Jackson Street
Louisville, Kentucky 40201

Behavior Problem Checklist

Herbert Quay
Director, Problem in Applied Social Sciences
P.O. Box 248074
University of Miami
Coral Gables, Florida 33124

Quincy Behavior Checklist

Helen Z. Reinherz, Sc.D.
Simmons College
School of Social Work
51 Commonwealth Avenue
Boston, Massachusetts 02116

Devereux Rating Scales

George Spivack
Devereux Foundation
Institute for Research and Training
Devon, Pennsylvania 19333

Hyperkinetic Rating Scale

A. Davids
Butler Psychiatric Hospital
Providence, Rhode Island

Child Behavior Characteristics Scale

E. F. Borgatta
University of Wisconsin

Teachers Behavior Rating Scale

Emory Cowen
University of Rochester Medical School
Department of Psychiatry

SUMMARY

Forty-four (44) scales are described that assess psychopathology and/or behavior problems in children (under 18 years of age). Excluded are tests of intelligence, intellectual functioning, brain dysfunction, organicity, learning disability, personality, infant development, cognitive development, perception, and projective tests. Scales included in this review are suitable for clinical and epidemiological research, are current (reported since 1967), have been used in at least one research study, have undergone some testing as to feasibility, and have some available psychometric data. The scales are divided into psychiatric interviews, general psychopathology scales, specific syndrome scales (hyperactivity, anxiety, depression, fear), and brief reports of miscellaneous scales. Each scale is reviewed as to its purpose, method of obtaining information, informant, scale properties, content, and psychometric properties (extracted in summary in a table for ease of review). Relevant references are cited after the description of each scale, and the majority of the scales themselves are contained in an appendix.

The field of childhood assessment is a rapidly growing one. By the time this report goes to press, most scales will have been developed further. Investigators interested in using a particular scale are urged to contact the developer of that scale.

We are most appreciative of the assistance and generous amount of information we received from the various scale developers toward completing this report, and it is our hope that their respective work has been fairly and accurately represented.

Helen Orvaschel, Ph.D.
Diane Sholomskas, M.A.
Myrna M. Weissman, Ph.D.

TABLE OF CONTENTS

Page

SECTION 1. INTRODUCTION AND OVERVIEW OF CONTENTS 1-4

SECTION 2. REVIEW OF PSYCHIATRIC INTERVIEWS 5-19

Diagnostic Interview for Children and Adolescents (Herjanic & Welner). . . 5
Parent Interview (Herjanic & Welner) 7
Mental Health Assessment Form (Kestenbaum & Bird). 8
Interview Schedule for Children (Kovacs, et al.) 10
Screening Inventory (Langner, et al.). 12
Kiddie—SADS (Puig-Antich & Chambers). 14
A Behavioral Screening Questionnaire (Richman & Graham). 16
Isle of Wight Survey (Rutter & Graham) 18

SECTION 3. GENERAL PSYCHOPATHOLOGY CHECKLISTS 20-58

Child Behavior Checklist (Achenbach) 20
Children's Behavior Checklist for Parents (Arnold & Smeltzer). 22
Child Behavior Characteristics Scale (Borgatta & Fanshel). 23
Children's Behavior Diagnostic Inventory (Burdock & Hardesty 25
Childhood Personality Scale (Cohen, et al.). 27
Conners' Rating Scales (Conners) 29
  Parent Questionnaire. 29
  Teacher Questionnaire 30
Teacher's Behavior Rating Scale (Cowen). 32
Children's Assessment Package (Cytrynbaum & Snow). 34
Adolescent Life Assessment Checklist (Gleser, et al.). 37
The Minnesota Child Development Inventory (Ireton & Thwing). 39
The Symptom Checklist (Kohn & Rosman). 41
Louisville Behavior Checklist (Miller) 43
Louisville School Behavior Checklist 45
Behavior Problem Checklist (Quay & Peterson) 47
The Quincy Behavior Checklist (Reinherz & Kelfer). 49
Behavior Checklist (Richman & Graham). 50
Children's Behavior Questionnaire for Teachers (Rutter). 51
Devereux Elementary School Behavior Rating Scale (Spivack & Swift) 53
Devereux Child Behavior Rating Scale (Spivack & Swift) 55
Devereux Adolescent Behavior Rating Scale (Spivack, et al.). 57

(continued)

TABLE OF CONTENTS (continued)

Page

SECTION 4. SPECIFIC SYNDROME SCALES 59-66

[Hyperactivity]
Hyperactivity and Withdrawal Rating Scale (Bell, et al.) 59
Parent-Teacher Questionnaire (Conners) 60
Hyperkinetic Rating Scale (Davids) 61

[Anxiety]
Manifest Anxiety Scale—Children's Form (Castaneda, et al.) 62

[Depression]
Children's Affective Rating Scale (Cytryn & McKnew) 64
Children's Depression Inventory (Kovacs, et al.) 65

[Fear]
Louisville Fear Survey for Children (Miller, et al.) 66

SECTION 5. BRIEF REPORTS OF MISCELLANEOUS SCALES 67-70

Instruments by Cohen, et al. 67
Parent Report 67
Behavior Problems 67
Twin Development During the First Years of Life 68
Pregnancy, Delivery and First Month of Life 68
Recent Family Changes 68

Early Clinical Drug Evaluation Unit (ECDEU) Scales 69

Teacher Affect Rating Scale (Petti) 70

REFERENCES 71-75

TABLES (1A through 3B) 76-85

SECTION 1. INTRODUCTION AND OVERVIEW OF CONTENTS

Introduction

A growing awareness of the importance of early recognition and treatment of psychopathology has resulted in increasing concern with the identification of behavioral problems in children. Recent trends in child psychiatry have begun to reflect this interest and efforts to develop reliable methods of information-gathering and classification of childhood psychopathology have been initiated (i.e., Early Clinical Drug Evaluation Unit [ECDEU]; Group for the Advancement of Psychiatry [GAP]; American Psychiatric Association Diagnostic and Statistical Manual--third edition [DSM-III]).

Much of the difficulty in achieving a system of classification of child psychopathology has been due to a lack of uniform and systematic assessment procedures with children. In addition, the need for comparability in the measurement and evaluation of behavioral disturbances of childhood is important for general information gathering, treatment, research, and questions regarding etiology. Children's problems are frequently developmental, transient, and/or lacking in prognostic significance. Only through rigorous efforts to obtain normative data of what is developmentally appropriate or inappropriate can we obtain the information needed about those behavior patterns that are pathological and would thereby benefit from intervention. Appropriate assessment procedures are then required to evaluate the effects of the intervention or treatment programs implemented. Finally, reliable data-gathering techniques would facilitate research of relevance to issues of the etiology of childhood psychiatric disorders.

Relatively few adequate, well-developed, and widely-used instruments are available to assess psychiatric disorders in children. As a result, most investigators interested in this area of research have been forced to develop their own method to evaluate those behaviors of particular interest to them. This report was initiated in an effort to facilitate communication in the child assessment field and to aid investigators in identifying measures of psychopathology already available and for which some data have been collected. It is hoped that this report will be viewed as an initial effort to centralize and disseminate information relevant to investigators of child psychopathology and that individuals are stimulated to improve the techniques of evaluation that are currently lacking. We expect that the process of instrument development will require continual revision and updating, and hope that information of this type will become more readily available to researchers.

Selection of Instruments

This report will review forty-four (44) instruments that assess psychopathological behavior in children. The review concentrates on instruments which focus on the 6 to 18-year-old age group, although a limited number of scales have been included which evaluate preschoolers. While every effort was made to include measures of behavioral disturbance

and psychopathology that are of relevance to epidemiological and clinical research with children, we do not claim to have exhausted this field. In fact, a frequency count of all tests used in federally funded research on children in 1975, yielded a list of 1,570 available instruments (Heyneman and Mintz, 1977).

To make our task more manageable, certain instruments and areas of functioning were excluded from this report. Only instruments that were relatively current (from 1967 to the present), and that seemed to be in general use, were included. Also included were measures which had been subjected to testing and which had some psychometric data available. Tests of intelligence, intellectual functioning, brain dysfunction, organicity, and learning disabilities were not included, nor were any of the projective techniques commonly used with children. These instruments require a more technical evaluation and already have an extensive literature associated with them. Tests of personality, infant development, socialization, cognitive development, and perception were also excluded. While these areas of functioning may be of interest to investigators of child behavior, they encompass an area of study too exhaustive for this report.

Ascertainment

Suitable instruments were identified by several methods. First, an initial literature search extending from 1967 to the present provided information about several potentially interesting instruments. Material was then generated through a more extensive search, performed at our request by the Washington University Social Research Group (OCD Retrieval Program). This group provided information on instruments used by government funded research projects on children, during the 1977 fiscal year. Additional measures were identified by personal contact with individuals well known in the field and direct solicitation of pertinent materials from investigators known to the authors. Instrument development in this area of research is recent and active, and omissions which may have occurred are inadvertent. We have tried to update the information on each instrument as it has become available. Certainly, several investigators will have made considerable advances in the testing and developing of their instrument by the time this report goes to press. Individuals interested in using any of the instruments reviewed here should contact the original investigators for the latest developments.

Method of Presentation of Instruments

Among the 44 instruments reviewed, there are 8 psychiatric interviews, 21 general psychopathology checklists, 3 hyperactivity scales, and 4 scales assessing other specific syndromes (anxiety, fear, and depression). A "brief report" section includes 8 additional instruments which, although considered worthy of mention, are not reviewed in detail usually because of their peripheral relevance to the assessment of psychopathology; or their insufficient scale development; or because

they have been extensively reviewed elsewhere.

Tables are presented that summarize the characteristics of the assessment instruments. These tables follow a format analagous to the text, that is, Tables 1A and 1B describe the psychiatric interviews; Tables 2A to 2F describe the general psychopathology checklists; Table 3A describes the hyperactivity scales; and Table 3B describes the remaining specific syndrome scales. Copies of the instruments that we were able to obtain are contained in the Appendix, which is organized alphabetically by the principal author of each instrument.

Components of Review

Each instrument is described according to its purpose, method of administration, informant, characteristics, content and psychometric properties, as follows:

Purpose. Each assessment instrument has been categorized as either diagnostic or screening, according to the investigator's evaluation of its main purpose. These categories are not necessarily mutually exclusive, as many instruments may be appropriate for both diagnostic and screening purposes. In general, however, psychiatric interviews are more amenable to making diagnostic decisions, while rating scales are more appropriately used as screening tools.

Method of Obtaining Information. Method refers to the main method for obtaining information, such as direct interview or self report. The choice concerning the method of obtaining information should be based on factors such as cost, time, efficiency, and feasibility. While direct interviewing procedures are more likely to provide more detailed and higher quality data, self-report inventories are more economical and practical.

Informant. The informant can be the child, the parent, a teacher, a clinician, or some other adult who knows the child. In the past, researchers have limited their evaluation procedures to obtaining information only from a child's parent, or in some cases the parent, teacher, and/or clinician. More recent data have demonstrated that the child is an important source of information, particularly concerning subjective experiences such as anxiety, depression, guilt, and the like.

Scale Properties. Each instrument is further described according to the number of items it contains, the level of definition of the item, the time period it attempts to assess, the approximate time needed to complete the instrument, whether the form is amenable to quantitative analysis (precoded or uncoded), and whether a scoring system is provided. If the instrument is in an interview format, the number of items are judged on the basis of the behaviors to be rated rather than on the specific questions involved in the evaluation of a behavior. The time period assessed and the completion time required were not always

clearly stated by the developers of an instrument. As a result, these areas were often approximated or derived as a function of the information available.

Content. The focus of the instrument was always on behavioral problems. Some scales also provided a systematic method of obtaining information on the child's development, pregnancy and birth complications, intellectual functioning, etc. In order to provide investigators with descriptive information about the instruments reviewed, we have highlighted some of the syndromes and symptoms of particular interest. More detailed information about the scope of a particular scale or interview should be obtained from the instrument itself (usually available in the Appendix).

Psychometric Properaties. There are several forms of reliability and validity. The reliability of an instrument may be evaluated by interrater reliability, test-retest reliability, or split-half reliability. At some point, all these methods should be utilized to insure an appropriate level of instrument development. The issue of validity is more difficult to demonstrate but is nevertheless also essential. The types of validity which need to be considered include content validity, discriminant validity, concurrent validity, and predictive validity. In our tables, we indicate whether a scale has reported any reliability and/or validity data. We do not necessarily mean to imply from our tables that the scales we evaluated have been demonstrated to be reliable or valid, but only that some psychometric data were reported for that instrument and that we have noted it in the report.

SECTION 2. REVIEW OF PSYCHIATRIC INTERVIEWS

Diagnostic Interview for Children and Adolescents (Herjanic & Welner)

The Diagnostic Interview for Children and Adolescents (DICA) (see Table 1A) was developed by Herjanic and Welner. It is a structured psychiatric interview, and is designed as a diagnostic instrument for children between the ages of 9 and 17 years. In a more preliminary version it was known as the Children's Psychiatric Interview (CPI) and was used with 6 to 16 year-old children. The current DICA is a considerable improvement over the CPI, but is still under revision and must be considered preliminary.

The DICA is administered directly to the child by an interviewer. It requires approximately 1 to 1 1/2 hours to complete and assessed psychiatric symptomatology during the child's life time. The interview is precoded and contains a complex scoring system. The DICA begins with basic demographic questions and inquires about school functioning, relationships at home, and general interpersonal functioning. It covers the diagnostic categories of Conduct Disorder, Drug and Alcohol Abuse, Depression, Mania, Phobias, School Phobia, Obsessions and Compulsions, Anxiety Neurosis, Briquet's, Depersonalization/Derealization, and Psychosis. Questions on enuresis and encopresis are included, in addition to sections dealing with sexuality, insight, judgment, orientation, and memory.

Analysis of this interview has thus far been reported only for the preliminary CPI version. The CPI was administered to 30 boys and 20 girls (aged 6 to 16 years), selected at random from a children's mental health clinic. Interrater reliability scores ranged from .80 to .95 with a mean of .89. Co-ratings showed an average agreement of .84. Comparisons of parent and child responses (for parallel instruments) showed an average agreement between items of 80%. No significant differences were found for content by age group, although, by sex, girls showed a consistently higher level of agreement with their parents. Testing to establish discriminant validity has been promising and attempts at obtaining diagnostic validity are in process. More recent information on DICA testing is not yet available, although the work is underway.

The DICA is a very promising diagnostic instrument with considerable epidemiologic potential. Questions are well phrased and diagnostic categories appear theoretically sound. The authors are aware that further testing and refinement are necessary and are in the process of collecting the necessary data.

REFERENCES

Herjanic B, Herjanic M, Brown F, Wheatt T: Are children reliable reporters? J Abn Child Psychol 3: 41-48, 1975.

Herjanic B, Campbell W: Differentiating psychiatrically disturbed children on the basis of a structured interview. Unpublished manuscript.

Herjanic B: Personal communication, 1979.

Parent Interview (Herjanic & Welner)

The Parent Interview (PI) (see Table 1A) was developed by Herjanic and Welner as an information-gathering and diagnostic instrument. It is a structured interview designed to assess psychiatric disorder in children between the ages of 6 and 16 years.

The PI is administered to the parent by a trained interviewer. It requires approximately 1 hour to complete and covers a broad range of behaviors and symptoms. The time period assessed is not explicitly stated but appears to be the life time of the child or children in question. The form attempts to ascertain information on all the children in a family, simultaneously. No clear scoring system is as yet apparent and the form is not currently precoded.

The PI begins with basic demographic questions about the family, together with questions about pregnancy and birth complications. The parent is then asked about the early development of each of the children in the family, which includes questions on hyperactivity, speech problems, enuresis, and the like. In addition, the parents are asked about home adjustment, the children's relationships with peers, school functioning and treatment history. The diagnostic categories covered by the PI include: Conduct Disorder; Phobias; Obsessions; Compulsions; Depression; Anxiety; and Psychosis. The PI also includes questions concerned with somatic complaints, physical symptoms, and sexual experiences.

The PI was administered to the mothers of 50 clinic children. The children were also interviewed, as was described in another report (see the DICA review). The average agreement between the parent's and the child's responses was 80%. Agreement between the two sources tended to be highest on the factual items and lowest on the mental status items. Children were often found to be better informants on subjective items, while the mother's responses were more reliable for objective questions.

The PI is a promising diagnostic instrument for use in epidemiologic and clinic studies. The interview itself is often cumbersome and the concept of obtaining information on several children simultaneously is unwieldy. A stated time perspective for the symptom clusters is necessary and a precise rating system for most of the items should be established. Overall, in its current form the PI must be considered preliminary and still in the developmental stage. Further refinement of the instrument is underway.

REFERENCES:

Herjanic B, Herjanic M, Brown F, Wheatt T: Are children reliable reporters? J Abn Child Psychol 3: 41-48, 1975

Herjanic B, Campbell W: Differentiating psychiatrically disturbed children on the basis of a structured interview. Unpublished manuscript.

Mental Health Assessment Form (Kestenbaum & Bird)

The Mental Health Assessment Form (MHAF) (see Table 1A) was developed by Kestenbaum and Bird as a screening instrument for the clinical assessment of school aged children (7 to 12 years old). It was originally designed as a tool for collecting standardized data on a sample of children with schizophrenic parents, in an effort to identify vulnerability to pathology.

The MHAF is not actually a psychiatric interview but, rather, a rating form that is used as an outline, around which a semistructured interview is conducted. The length of the interview may vary considerably although it is suggested that approximately 45 minutes is adequate. There are about 180 defined items to be rated on a variable scale with most items scored from 1 to 5 (ranging from no deviation to marked deviation). Specific instruction regarding the time period assessed is left unclear, but the items appear to refer to "current" functioning. The form is precoded and contains a separate score sheet.

The MHAF contains two major sections which are further subdivided into a number of areas. The first section is rated on the basis of the interviewer's observations of the child and includes items in the areas of physical characteristics, motoric behavior and speech, interpersonal relatedness, affect, and language and thinking. The second section of the form is rated on the basis of material the interviewer has elicited from the child during their interactions, and includes categories dealing with feeling states, interpersonal relations, dreams and fantasies, self-concept, moral judgment, and general level of adaptation.

A trained mental health professional, skilled in child interviewing techniques, is assumed to be required to do the interview and ratings. The ratings are based on "accepted clinical impressions about normality." A half-hour videotape demonstrating the use of the MHAF is available. A form for use with adolescents (ages 13 to 19) is also being developed by the authors. It contains additional items in such areas as drug abuse, alcoholism, and sexual behavior. This form is still in the preliminary phase of development.

Results of the MHAF have been reported for 35 children in the following three groups: 7 children with a schizophrenic parent; 2 children with a manic-depressive parent; and 26 children with a "normal" parent. Interviews were videotaped and independently rated by three child psychiatrists. Reliabilities among raters ranged from .43 to .94 for items on which some variance was present. "High" reliability was reported for items in the Feeling States, Interpersonal Relationships, Self-Concept, and Moral Judgment sections. Poor reliability was found for General Level of Adaptation and Use of Defense Mechanisms.

The items of depression, anger, anxiety, disturbed relationship with mother, aggressive behavior, covert aggression, bizarreness of

dreams, and discrepancy between perceived and ideal self were found to discriminate between the children with psychiatrically disturbed parents and the children with normal parents. A validity study comparing the interview results of 30 clinic children to clinician ratings has also been completed. Preliminary findings suggest "good" validity on 35 items, particularly anxiety and depression. Many of the items could not be assessed because of a lack of variance in the ratings.

The MHAF requires a good deal more testing. Many of the items are unclear in meaning and have questionable placement in the text of the interview (i.e., masturbatory activity is rated as a motor behavior along with items such as tics and tremors). The ratings of many items require highly subjective interpretations of behavior by the interviewer (i.e., egocentricity, character of fantasy). These ratings could be improved if confined to the evaluation of specified and observable behaviors. Reliability scores reported thus far on the MHAF have been poor on many items. In addition, a better test of reliability for the interview as a whole would be generated by a test-retest situation, using different interviewers. Discriminant validity has yet to be demonstrated, since initial data were reported for a very small sample of children. The authors have indicated that the MHAF is still in revision and that they are attempting to improve the specificity of their scoring system.

REFERENCES:

Kestenbaum CJ, Bird HR: The mental health assessment form: An instrument for the assessment of the latency age child--interrater reliability study. Unpublished manuscript.

Kestenbaum CJ, Bird HR: A reliability study of the mental health assessment form for school age children. J Amer Acad Child Psychiat 17 (Spring): 338-347, 1978.

Bird HR: Personal communication, 1979.

Interview Schedule for Children (Kovacs, et al.)

The Interview Schedule for Children (ISC) (see Table 1A) was developed by Kovacs, et al., primarily for the purpose of assessing depressive symptomatology and related behavior disturbances. It is a structured psychiatric interview designed as a diagnostic instrument for use with children between the ages of 8 and 13 years.

The ISC is administered directly to the child by a trained interviewer with clinical experience. It requires approximately 35-45 minutes to complete and assesses psychiatric symptomatology during the past two weeks or since the onset of the current disorder. It includes about 37 symptoms or symptom clusters. Items and ratings are defined and the form is precoded.

The ISC begins with a few minutes of semistructured questioning during which the interviewer establishes rapport with the child and determines the nature and duration of the problem. This initial portion of the interview is followed by structured questioning to systematically determine the presence of the specific symptom picture. Symptoms are generally rated on a 0-3 to 0-8 scale (depending on severity), although some items are categorical or rated as present or absent. Diagnostic categories or symptom clusters covered by the ISC include the following: Depression (i.e., dsyphoric mood, vegetative disturbances, guilt, suicidal behavior, ideation, somatic complaints, etc.); Conduct Problems (i.e., fighting, truancy, stealing, etc.); School Phobia; Drug Abuse; and Psychosis (i.e., delusions, hallucinations, etc.).

Preliminary analysis of the ISC was based on data from 39 clinic and 20 nonclinic children between the ages of 8 and 13 years. Interrater reliabilities for the individual items ranged from .14 to .98. Most of the items had acceptable reliability scores, usually greater than .7. A principal component factor analysis was also performed on the ISC and resulted in five factors. These factors included a Depression Factor, a Hyperactive/Elated Factor, a Behavior Problem Factor, A Psychoticism Factor, and a Suicidal/Suspiciousness Factor. Relatively good discrimination between the clinic and nonclinic children was also reported.

The ISC appears to be a good instrument for assessing depressive symptomatology and a limited number of other behavioral problems in children. The questions are generally well phrased and the depression section is consistent with known empirical findings. The range of the ratings seems occasionally arbitrary and additional work is needed to establish reliability and validity. Finally, the item on "repetitious worry/obsessional concern" is unclear with regard to its focus, so that the reader is uncertain whether the item concerns brooding or obsessive thoughts.

REFERENCES:

Kovacs M, Betof NG, Celebre JE, Mansheim PA, Petty LK, Raynak JT: Childhood depression: Myth or clinical syndrome? Unpublished manuscript.

Kovacs M: Personal communication, 1979.

Screening Inventory (Langner, Gersten & Eisenberg)

The Screening Inventory (SI) (see Table 1B) was developed by Langner, Gersten, and Eisenberg to assess psychiatric impairment in children from 6 to 18 years of age. It is designed for use in community samples as a general screening instrument rather than as a diagnostic tool. The scale was intended to be descriptive and to represent a wide range of behaviors with predictive value for psychiatric disorder.

The SI is composed of three sections: (1) the background section consisting of 11 demographic items; (2) the child section consisting of 40 child behavior items; and (3) the parental section consisting of 32 parental behavior items. There are also two forms of the SI, an M-form designed to be administered to the child's parent, and a C-form designed to be administered to the child. Direct administration of the C-form, however, is limited to children 14 years of age or older. The inventory items are specific, defined, and have precoded corresponding ratings. While the time period assessed is not clearly stated, the instrument is intended to correlate with "current impairment." The questionnaire is generally administered as a structured interview (but probably can be adapted for use as a self-report). Completion time is approximately 20 minutes for a trained interviewer. The SI is accompanied by instructions and scoring sheets, age- and sex-specific norms, and a scoring procedure.

The original SI consisted of 654 items measuring the child's functioning with parents, siblings, peers, and in school. The mothers of 1,034 randomly-selected children and 1,000 welfare-supported children were interviewed for 2 to 3 hours each. Male and female children were included in the sample which represented all age groups between 6 and 18 years. The mother's responses to the questionnaire were then evaluated by two psychiatrists who rated the child's level of impairment on a 5-point scale. Interrater reliability for total impairment was .84. Of the 2,034 children in the total sample, 357 were randomly selected for an individual psychiatric interview lasting approximately 1 1/2 hours. Psychiatrists rated these children on the same 5-point psychiatric impairment scale. Ratings based on the child's interview correlated from .33 to.48 with ratings based on the mother's interview.

The questionnaire was reduced from its original 654 items to 287 items by eliminating items with low frequencies and condensing or combining other items into composites. A principal component factor analysis with orthogonal varimax rotation was performed on the remaining items. Eventually, 7 factors were identified which correlated .73 with the total impairment scores. The five items with the highest loadings on each factor were selected to represent their subscale. The seven factors were: Self-destructive Tendencies; Mentation Problems; Conflict with Parents; Regressive Anxiety; Fighting; Delinquency; and Isolation. The multiple correlation of the subscales with overall

impairment was .64. An additional five items were added to the child behavior scale bringing it to a total of 40 items, with an internal consistency of .76 and interrater reliability from .43 to .66. Five factors for the parental items are also reported, and include: Mother Rejecting; Parental Coldness; Mother's Physical and Emotional Illness; Parents Quarreling; and Child's Mild Chronic Illness.

An additional form of the SI has recently become available. This form is known as the Family Research Project Questionnaire and is intended as a crosscultural version of the SI C-form. It is expected to be used in a number of countries in the hopes of developing cross-national norms of child psychopathology.

The SI has a number of valuable features as a screening inventory. It contains a relatively small number of well-defined items which can be administered with adequate reliability. It also enables investigators to compare data with age- and sex-appropriate norms which have been derived from a large sample. The inventory has some limitations in that it is not intended for direct administration to children under the age of 14 and therefore relies on the parent as its primary information source. In addition, interrater reliability for the 40 child behavior items was acceptable but modest (.43 to .66) and the correlations between psychiatrist's impairment ratings for mother vs. child informants were even lower (.33 to .48).

REFERENCES:

Gersten JC, Langner TS, Eisenberg JG, Simcha-Fagan D, McCarthy ED: Stability and change in types of behavioral disturbance of children and adolescents. J Abn Child Psychol 4: 111-127, 1976.

Greene EL, Langner TS, Herson JH, Jameson JD, Eisenberg JG, McCarthy ED: Some methods of evaluating behavioral variations in children 6 to 18. J Amer Acad Child Psychiat 12: 531-553, 1973.

Katz M: Personal communication, 1979.

Langner TS, Gersten JC, McCarthy ED, Eisenberg JG, Greene EL, Herson JH, Jameson JD: A screening inventory for assessing psychiatric impairment in children 6 to 18. J Consult Clin Psychol 44: 286-296, 1976.

Kiddie-SADS (Puig-Antich & Chambers)

The Kiddie-SADS (K-SADS) (see Table 1B) was developed by Puig Antich and Chambers as a children's version of the Schedule for Affective Disorders and Schizophrenia developed for adults by Spitzer and Endicott. The interview has undergone a number of revisions and should still be considered as preliminary.

The K-SADS is a structured psychiatric interview, designed primarily as a diagnostic instrument for children between the ages of 6 and 17 years. It is administered directly to children, as well as to parents about the children, and necessitates the use of a trained interviewer. It requires approximately 45 minutes to 1 1/2 hours to complete and assesses psychiatric symptomatology during the past month or since the onset of the illness episode in question.

The first few minutes of the K-SADS involves a semistructured interaction between the interviewer and the child, during which the nature of the problem(s) and the duration is ascertained. This discussion is followed by the structured portion of the interview, which systematically investigates the child's overall symptom picture. Most of the symptoms are rated on a 1-4 to 1-7 scale (depending on severity), although some symptoms are rated simply as present or absent. Each symptom is given an additional rating for the "past week," so that treatment change can be determined.

The K-SADS covers the following diagnostic categories: Major Depression (including subtypes); Manic Disorder; Separation Anxiety (with or without school phobia); Generalized Anxiety; Phobias; Depersonalization/Derealization; Obsessive-Compulsive Disorder; Conduct Disorder; and Schizophrenia. The coding system is defined and diagnostic decisions are based on DSM-III criteria for the particular syndrome.

Preliminary testing of the K-SADS has been reported, although the number of children involved has been quite small. Interrater reliability has been excellent for the major diagnostic syndromes and has ranged from .65 to .96 for individual symptoms. Test-retests have been conducted following imipramine treatment of depressed children and have demonstrated K-SADS ratings to be sensitive to changes due to drug treatment. Comparisons between mother and child interviews have also been encouraging and suggest the necessity of ascertaining diagnostic information from both sources.

Work on a life-time version of the K-SADS (K-SADS-L) is currently underway and revision of the K-SADS (current version) is also in process. Diagnostic categories have been added such as Attentional Disorder, Drug and Alcohol Abuse, and Panic Disorder. Previous categories have been further refined or augmented so that diagnostic decisions may be more easily determined. Symptoms on the K-SADS-L are rated only for their presence or absence since the life-time version is not concerned with treatment effects but rather with a determination of overall

psychiatric disorders (past or present). When completed, it is hoped the K-SADS-L will be useful for epidemiologic research of psychiatric disorders in children. Reliability and validity studies of the K-SADS-L are underway.

REFERENCES:

Chambers WJ, Puig-Antich J, Tabrizi MA: The ongoing development of the Kiddie-SADS. Unpublished manuscript.

Puig-Antich J, Blau S, Marz N, Greenhill LL, Chambers W: Pre-pubertal major depressive disorders: A pilot study. J Amer Acad Child Psychiat. In press

Puig-Antich J: Personal communication, 1979.

A Behavioral Screening Questionnaire (Richman & Graham)

The Behavioral Screening Questionnaire (BSQ) (see Table 1B) was developed by Richman and Graham to screen for maladaptive behavior in preschoolers. The BSQ is a 12-item subscale derived from a 60-item interview schedule, developed to obtain information on 3-year-old preschoolers' behavior, health, and development.

The 12 items of the BSQ were selected because of their ability to discriminate between children with no behavioral difficulty (untreated) and children with behavioral difficulty (treated). The 12 behaviors rated are: eating; sleeping; soiling; activity; concentration; relationship with siblings or peers; dependence; attention seeking; control; temper; mood; worries and fears. A semistructured interview is conducted with the parent by a trained interviewer to obtain the information. A parent self-report version, "The Behavior Checklist," has also been developed and is discussed elsewhere in this review.

The 12 items of the BSQ are scored on a 3-point rating scale from 0 (not present) to 2 (marked difficulties). Only the hyperactivity item of the BSQ is rated on a 2-point scale (presence/absence). All items are rated for the time period of the last four weeks. The scale is scored by summing all items. A maximum score of 24 points indicates marked behavioral difficulties. A cut-off score of 10 or more is used to identify children at risk.

The BSQ was standardized with several populations of 3-year-old children, derived from welfare centers, nursery schools, a Cerebral Palsy Clinic, and a hospital clinic for emotionally disturbed children (day patients, inpatients, outpatients). Test-retest reliability ratings were conducted on 57 children. Twenty of the 57 interviews were tape recorded and rated by two interviewers. Test-retest reliability was .77, while interrater reliability (based on taped interviews) was .94. Reliability on the individual items was lower than for the overall score and yielded correlation coefficients ranging from .15 to .77. The three items demonstrating poor interrater reliability were: concentration; hyperactivity; and anxiety. Both parents and interviewers had difficulty assessing these items. In addition, parents reported that they had never considered whether their child worried or experienced anxiety.

Validity of the BSQ was demonstrated by its ability to discriminate between preschoolers attending the psychiatric clinic and those not attending the clinic. The results of the study may have been confounded, however, since the interviewers were not always blind to the psychiatric status of the child, i.e,, the parents tended to inform the interviewer of the child's status. The specific items of the BSQ which were most predictive of behavioral problems were: soiling, mood, and dependency. Other items such as sleeping, eating problems, problems with peers, were also predictive of later behavior problems. Temper tantrums, fears and hyperactivity were not found to have predictive value.

The BSQ was used in several additional validation studies. The BSQ was used in a study of 705 three-year olds to screen for behavior problems. A subgroup of 205 children was chosen for a one-year follow-up study. This subgroup included 99 children with behavioral problems as identified by BSQ ratings of 10 points or more; 99 normal control subjects; and 22 subjects diagnosed as having a delay in language development. The children's BSQ was compared to independent clinical ratings made by a professional on each subject. After one year, 198 children of the control and behavior problem group, as well as 21 children in the delay of language development group were re-interviewed. The study found that children with behavioral problems at age 3 are more likely to have behavioral problems at age 4, when compared with normal control children. However, the presence of individual BSQ symptoms at age 3 did not predict outcome at age 4. Only the total BSQ score predicted outcome.

The BSQ has demonstrated its usefulness as a screening device and as a method for gathering information in preschool populations. It has been shown to have some predictive validity and may be useful in clinical settings. The authors stress the importance of understanding the significance of different behaviors at various ages in order to develop a scale which predicts behavioral problems. They suggest developing a weighted score for BSQ items in order to improve its predictive abilities, since they feel that maturation accounts for much of the variability in behavior in children over time.

REFERENCES:

Richman M: Is a behavior checklist for preschool children useful? In Graham PJ (ed): Epidemiological Approaches in Child Psychiatry. Academic Press, New York, 1977, pp. 125-137.

Richman M: Short-term outcome of behavior problems in three year old children. In Graham PJ (ed): Epidemiological Approaches in Child Psychiatry. Academic Press, New York, 1977, pp. 165-179.

Richman M, Graham P: A behavioral screening questionnaire for use with three year old children. Preliminary findings. J Child Psychol. Psychiat. 12: 5-33, 1971.

Isle of Wight Survey (Rutter & Graham)

The Isle of Wight Survey (IWS) instrument (see Table 1B) was developed by Rutter and Graham in an effort to obtain systematic information about psychiatric disorders in children. Psychiatric disorder was defined by the authors as "...abnormalities of emotions, behaviour or relationships which are developmentally inappropriate and of sufficient duration and severity to cause persistent suffering or handicap to the child and/or distress or disturbance of the family or community..." (Rutter and Graham, 1968, p.153). The instrument was intended to be of diagnostic utility and was designed so as to elicit information directly from children between the ages of 7 and 12 years.

The IWS is a semistructured interview of approximately a half hour's duration. It contains over 100 items dealing with interpersonal and behavioral aspects of the child's life. Initial questions focus on school, peer contacts, family interactions, and spare-time activities. Following this, the child is assessed on behavior more specifically related to symptomatology, such as antisocial activities, hypochondriasis, fears, worries, depression, and so on. Items are rated on a scale which varies from yes/no to a 4-or 5-point range. The time perspective of the interview is unclear, but appears to emphasize "current" behavior. When the interview is completed the interviewer rates the child for probable, definite, or no psychiatric disorder, and also indicates the nature of the disorder, if one is present.

To examine test-retest reliability, the IWS was administered to 89 children at two points in time using different interviewers. Agreement between interviewers for the rating of definite psychiatric disorder was .84 and for probable disorder was .51. Reliability scores for individual items were much lower, however, particularly for behaviors such as mood, attention, and activity. Additiona. examination of test-retest reliability showed good agreement for the extremes of behavior and was less favorable on more moderate item variation. Interrater reliability was tested on 25 children between the ages of 7 and 12 years and produced item agreement which ranged from .63 to .95. Discriminant validity was examined by comparing the interview findings for a normal population of 159 children with those of a population of 108 children considered psychiatrically disturbed on the basis of information obtained from parents and teachers. Interviewers were blind to the child's psychiatric status prior to the interview. Differentiation between the groups was good with psychiatric disorder ratings occurring far more frequently in the abnormal group than in the control group.

The IWS was an important first step in the development of a psychiatric interview for use with pre-adolescent children. It achieved acceptable reliability scores on overall impairment ratings and provided a useful tool for the initial discrimination between children with and without a psychiatric disorder. The interview did have difficulty, however, obtaining good interrater agreement for many

items and areas of functioning. This was probably due to shortcomings in the manner in which many questions were worded and the need for a more clearly defined rating system. The IWS was not always systematic in obtaining information for a particular diagnostic entity and the criteria for arriving at a diagnostic determination were not obvious.

REFERENCE:

Rutter M, Graham P: The reliability and validity of the psychiatric assessment of the child. I. Interview with the child. Brit J Psychiatry 114: 563-579, 1968.

SECTION 3. GENERAL PSYCHOPATHOLOGY CHECKLISTS

Child Behavior Checklist (Achenbach)

The Child Behavior Checklist (CBCL) (see Table 2A) is a 130-item scale, originally developed by Achenbach as a behavior problem checklist. While the initial format was designed to assess behavior on the basis of case history data, the present CBCL is a self-report which is administered to the child's parent(s) or parent surrogate(s). A modified version has also been developed for teachers and includes items on school behavior and performance.

The scale was designed primarily as a screening instrument to detect behavioral deviations in children between the ages of 4 and 16 years. The CBCL is composed of 2 parts. Part I includes 3 social competence subscales:

1. the activities scale, which rates the amount and quality of the child's participation in sports, hobbies, clubs, and chores;

2. the social scale, which rates the child's interpersonal behavior with others (siblings, parents, peers) and his/her behavior alone;

3. the school scale, which rates the child's academic performance and attempts to determine the presence of school problems.

The parent is asked to rate the child on each of the items "...compared to other children of his/her age." Part II is made up of 113 items describing a variety of behavioral problems. The parent rates each item on a 3-point scale, from 0 (not true of child) to 2 (very true or often true of child). The time period assessed is "now or within the past 12 months."

The CBCL is on a precoded form. Data may be entered directly on a computerized or hand-scored version of the Child Behavior Profile. The Profile provides an overview of the child's behavior, delineates how the child's problems and competencies cluster, and indicates how the child compares with normal children of his/her age and sex group. The Profile also produces a graphic display of the raw scores for the CBCL scales with percentile listings and T (or transformed) scores. Separate editions of the Profile have been normed for males and females in the age ranges of 4 to 5, 6 to 11, and 12 to 16 years.

Norms on the CBCL are based on data obtained from 1100 children in randomly-selected homes. Fifty normal children of each sex and at each age (6-16) are included in the sample thus far. Standardizations for the 4-5 year age groups are currently in progress. The behavior problems scales were derived by means of factor analysis (principal components) of CBCLs completed for 1800 disturbed (clinic) children. The factors were computed separately for males and females according to age (6-11, 12-16) and include subscales such as delinquent, depressed, somatic complaints, aggressive, etc.

Short-term (about 1 week) test-retest reliabilities on normal children ranged from .72 to .97, with variations depending upon the sex and age of the child and the particular subscale involved. Long-term (6 to 27 months) test-retest reliabilities on clinic children ranged from .26 to .79 with most correlations in the acceptable range (over .5). Interrater reliabilities (mothers vs. fathers) ranged from .54 to .87, varying with age and sex of child and subscale involved. The sample sizes in the various reliability studies tended to be quite small (from 8 to 37 children per group). Scores on all behavior problems and social competence subscales are reported to adequately differentiate between clinic and nonclinic (normal) children, indicating good preliminary discriminant validity.

The CBCL hopes to provide a means by which empirical data can be collected in order to develop a descriptive classification system for child psychiatric disorders. It is also recommended by its developer as a guide to clinical interviewing as well as to research on etiology, treatment, and prognosis in child psychiatry.

The CBCL was developed, modified, and revised on the basis of theoretical principles, extensive clinic expertise, and sophisticated statistical techniques. The scoring system is derived from an impressively large sample size and the scale enables children to be compared with appropriate age and sex group norms. Preliminary reliability and validity data demonstrate quite adequate scores on these measures.

REFERENCES:

Achenbach T: The child behavior profile. I. Boys aged 6-11. J Consult Clin Psychol 46: 478-488, 1978a.

Achenbach T: The child behavior profile: An empirically based system for assessing children's behavioral problems and competencies. Interntl J Mental Health, in press.

Achenbach T, Edelbrock CS: The child behavior profile. II. Boys aged 12-16 and girls aged 6-11 and 12-16. J Consult Clin Psychol, in press.

Children's Behavior Checklist for Parents (Arnold & Smeltzer)

The Children's Behavior Checklist for Parents (CBC-P) (see Table 2A) is a 74-item scale developed by Arnold and Smeltzer. It is based on an 81-item checklist used at the Ohio State University Child Psychiatric Clinic, which, in turn, was adapted from a form used at the Johns Hopkins Child Psychiatry Clinic. The checklist was modified, mainly for the purpose of collecting information on a clinic population. In its present form it can be utilized as a general screening instrument for assessing psychopathology in children (ages 2-18 years).

The CBC-P is designed as a self-report. It is completed by the parent(s) or parent surrogate(s), who is asked to rate each item on a 4-point scale from 1 (not at all true of child) to 4 (very much true of child). The time period of the behavior assessed is not stated but may be assumed to refer to "current" behavior. The form appears simple to fill out. Completion time is not reported, but can be expected to require approximately fifteen minutes.

Data from the checklists of 351 clinic children (216 males, 135 females) were factor analyzed separately by age (2-12 years, $\bar{x}$ = 8.5; and 13-18 years, $\bar{x}$ = 15.1). Factors were identified by item loadings of .4 or greater. Analysis of the data from the 2-to-12-year-old group yielded six factors: 1) Unsocialized Aggression; 2) Inattentive Unproductiveness; 3) Sociopathy; 4) Hyperactivity; 5) Withdrawal-Depression; 6) Somatic Complaints. The 13 to 18 year age group analysis yielded seven factors. Five of the seven were essentially the same as the first five listed for the children's group. Factor six was renamed Somatic Neuroticism and factor seven was the result of the separate clustering of the sleep disturbance items.

Information on interpersonal functioning is not assessed by the CBC-P and the scoring system for factors is not adequately detailed. No reliability data is reported for this instrument. Validity of individual item scores is "assumed" but no validation attempts were discussed by the authors. Finally, the factors which were derived are based solely on data from a mostly-male clinic sample. Norms are not available separately for males and females, and are a function of age groups which could use further refinement (e.g., utility of many items for the 2-to-5 age group is questionable).

REFERENCE:

Arnold LE, Smeltzer DI: Behavior checklist factor analysis for children and adolescents. Arch Gen Psychiatry 30: 799-804, 1974.

Child Behavior Characteristics Scale (Borgatta & Fanshel)

The Child Behavior Characteristics Scale (CBCS) (see Table 2A) was developed by Borgatta and Fanshel to assess a broad range of observable age-specific behaviors in children. In devising the scale, the authors first conceptualized several categories of child behavior and functioning and then constructed items to fit those categories. In the preliminary stages of the CBCS development, many items were included in order to test the relevance of the items to particular age groups. The items were evaluated by parents, social workers, nurses, etc. Data from 428 children (aged from under 3 months to 17 years) were factor analyzed. On the basis of the initial factor analyses, items were eliminated if: 1) they did not load on any factors; 2) they did not "organize well in the data;" 3) they had insufficient variance; and 4) they were difficult for raters to respond to.

The preliminary analyses led to the construction of three age-specific subforms of the CBCS. Form 1 applies to the neonate-to-2-year age group and contains 60 items; Form 2 applies to the 2-to-6 year age group and contains the previous 60 items plus 55 additional items; Form 3 applies to the 7-to-17 year age group and contains all of the 115 items. The scale also contains 4 items on the physical characteristics of the child and one open-ended question on physical or mental defects. The 115-item scale is administered as a self-report. Respondents may be parents, teachers, social workers, or the like, and are asked to rate each behavior on a 5-point scale from "never" to "almost always." Completion time is unclear and the time period assessed can only be assumed to be "current" behavior.

The revised CBCS was subsequently tested with a sample of 600 children in foster care settings (approximately 200 in each of the three age groups). The data were factor analyzed separately by age and also with age groups combined. Sixteen composite scores or factors were developed. These composites include: 1) Alertness-Intelligence; 2) Learning Difficulty; 3) Responsibility; 4) Unmotivated-Laziness; 5) Agreeableness; 6) Defiance-Hostility; 7) Likeability; 8) Emotionality-Tension; 9) Infantalism; 10) Withdrawal; 11) Appetite; 12) Sex Precociousness; 13) Overcleanliness; 14) Sex Inhibition; 15) Activity; and 16) Assertiveness. Alpha coefficients for the composite scales were generally high, ranging from the .60s to the .90s. Interrater reliability coefficients were based on ratings of 83 to 165 pairs of raters and ranged from .22 to .68. Most of these interrater reliability scores were relatively low.

The CBCS was derived to assess age-specific behaviors in children and to compare these behaviors to appropriate norms. The attempt to cover such a wide age range appears ill-conceived, however, and has led to a complicated and confusing use of cluster scores, component scores, and composite scores. The method reported for the testing of interrater reliability was unclear; the number of pairs of raters was

extremely large and differed occasionally for the various composite scales and for the different age groups. In addition, the interrater reliability scores were generally quite low.

REFERENCE:

Borgatta EF, Fanshel D: The child behavior characteristics (CBC) form: Revised age-specific forms. Multivariate Behavioral Research 5: 49-82, 1970.

Children's Behavior Diagnostic Inventory (Burdock & Hardesty)

The Children's Behavior Diagnostic Inventory (CBDI) (see Table 2A) was constructed by Burdock and Hardesty to assess disturbed behavior in children. The scale was developed as a result of a literature search of diagnostically significant behaviors, followed by a compilation of these behaviors, and a delineation of the age at which the behaviors become developmentally inappropriate or pathological in nature.

The behavioral items were grouped according to age into 6 two-year intervals ranging from age 1 to age 12. The scale is cumulative so that the number of items assessed increases as a function of the age of the child (i.e., there are 11 items rated at ages 1 to 2, and by ages 11 to 12, 137 items are rated. The behavioral items assessed are grouped into six general areas: Vegetative Functioning; Appearance and Mannerism; Speech and Voice; Emotional Display; Socialization; and Thought Processes. The observer rates the presence or absence of maladaptive behavior exhibited at the time of rating. Each behavior is weighted and a total score is derived on the basis of the percentage of deviant behavior for the relevant age group. Although no time frame was specified, the scale appears to rate "current" behavior.

A small sample of 15 mentally ill children was assessed by nurses over a two-day period in order to establish reliability data for the scale. Interrater agreement yielded a correlation coefficient of .72. The amount and type of variance among observer ratings also were investigated. Two-thirds of the variance was attributed to subject differences in behavior rather than differences between raters.

A normal sample of 59 male and 39 female children, aged 3-12 years, was observed. Preliminary results show that boys scored higher than girls. This difference may be normative or may be indicative of greater psychopathology in males. Scores on the CBDI easily discriminate between normal children and mentally ill children. Disturbed children score higher and there is virtually no overlap of scores between groups. The total mean score for normal children was 7.4, while the total mean score for abnormal children was 21.5. Five children from the normal sample were followed up four months after their initial rating on the CBDI. Results at follow-up were similar to initial findings.

The CBDI appears to be a potentially adequate scale for screening maladaptive behavior in children. Its strengths are in the age-correlated behavior items. Its weakness is its dependency on rating only behavior exhibited at the time of observation. This limits its use to situations such as inpatient facilities or day-care centers rather than situations which permit the expression of a more varied repertoire of behavior by the child. There is need for further validation of the scale on larger populations, both normal and abnormal. It appears to be useful for differentiating between ill and well children and may be useful in epidemiological studies.

REFERENCE:

Burdock E, Hardesty A: A children's behavior diagnostic inventory. Annals New York Academy of Sciences, 105: 890-896, 1964.

Childhood Personality Scale (Cohen, et al)

The Childhood Personality Scale (CPS) (see Table 2B) is a 48-item scale developed by Cohen and Dibble. It is based on the conceptualizations and behavioral items outlined by Schaefer and others and attempts to delineate competencies and vulnerabilities in preschool-aged children. It was designed in conjunction with a number of other instruments (see Brief Reports Section: Cohen, et al.) for use in epidemiological studies on personality development in twins during the first six years of life. However, the CPS and its companion instruments are not limited to twin studies.

The CPS is a self-report administered to mothers and/or fathers. Parents rate their children's typical behavior "for the last two months" on a 7-point scale, from 0 (never true of child's personality and behavior) to 6 (always true). The items on the CPS represent 24 behavioral categories (12 socially desirable, 12 socially undesirable) with two items defining each category. The behaviors assessed include items such as general activity level, quality of interpersonal contact, and relationship to environment (i.e., passive versus active). Completion time is not stated but would probably range from ten to fifteen minutes.

Test-retest reliabilities have been reported for categories (rather than items). Two studies of 20 sets of twins and 20 singletons found 0 to 3 categories with statistically significant differences from time 1 to time 2. Interrater reliabilities for mothers, fathers, and social workers fared less well, with significant differences ranging from 11 to 16 categories. Interrater reliability between two teachers was reported as "good." The only validity measure considered was the agreement of parent and observer ratings with nursery school ratings. Correlations were stated as many, but information was not specific so that adequate evaluation of the validity data is not possible.

Data on the CPS have now been collected for more than 400 sets of twins. The CPS has been factor analyzed, and less reliable items have been eliminated. The analyses yielded behavioral dimensions of childhood competence which included verbal expressiveness, attention, zestfulness, sociability, and behavior modulation. The CPS is available in a shorter 20-item "factor scale" form and also has been adapted for ratings of "real" and "ideal" child.

The CPS is one of only a few instruments available to assess the personality characteristics of preschool children. It is easy to administer and attempts to characterize both positive and negative behaviors in children. Interrater reliability has not yet been adequately demonstrated and further refinement would be preferred. In addition, the CPS lacks adequate validity measures and no plans for additional validation attempts were discussed by the authors. At the present time, there are insufficient data to determine whether the CPS

would be an appropriate screening device for psychopathology in young children.

REFERENCES:

Cohen DJ, Dibble E: Father's and mother's perceptions of children's personality. Arch Gen Psychiatry 34: 480-487, 1977a.

Cohen DJ, Dibble E: Parental style. Arch Gen Psychiatry 34: 445-451, 1977b.

Dibble E, Cohen DJ: Companion instruments for measuring children's competence and parental style. Arch Gen Psychiatry 30: 805-815, 1974.

Dibble E, Cohen DJ: Biological endowment, early experience, and psychosocial influences on child behavior: A twin study. Paper presented at the 9th Congress of the International Association for Child Psychiatry and Allied Professions. Melbourne, Australia, 1978.

Conners' Rating Scales

Three rating scales have been developed by Conners: the Parent Questionnaire, the Teacher Questionnaire, and the Parent-Teacher Questionnaire. While these scales have overlapping purposes and some common features, their wide use and extensive data base warrant individual examination. The Parent Questionniare and the Teacher Questionnaire are discussed below. The Parent-Teacher Questionnaire is reviewed as one of the hyperactivity scales in the Specific Syndrome section of this report.

Parent Questionnaire

The Parent Questionnaire (PQ) (see Table 2B) was developed by Conners as a means of screening for hyperkinesis and other behavior problems in children and as an aid in evaluating drug treatment effects. It contains 93 behavioral items (e.g., problems with eating and sleeping, fears, worries) and a final question which asks for an indication of the level of overall severity of the child's problem.

The PQ is administered as a self-report which is completed by the parent(s) or parent surrogate(s). The form is precoded and can be fully computerized. Ratings are made on a 4-point scale from 0 (not at all) to 3 (very much), depending upon how much the parent feels the child has been bothered by the problem in the last month. The age assessed by the PQ ranges from about 3 to 17 years.

Data based on a total of 683 clinic and normal children were factor analyzed with orthogonal rotation. Eight subscales were identified as follows: 1) Conduct Problems; 2) Anxiety; 3) Impulsive/Hyperactive; 4) Learning Problems; 5) Psychosomatic; 6) Perfectionism; 7) Antisocial; and 8) Muscular Tension. These factors have been found to be stable and are able to reflect the effects of psychopharmacological treatment with hyperactive children.

A revised Parent Rating Scale also has been developed. It contains some items which were rewritten for clarity and some combinations of items which help to reduce redundancy. In addition, items with low loadings in previous factors were excluded, so that the revised PQ contains 48 statements. Factor analysis of the revised form yielded five subscales: 1) Conduct Problems; 2) Learning Problems; 3) Psychosomatic; 4) Impulsive/Hyperactive; and 5) Anxiety. These factors correlated .94, .63, .70, and .90 with Conners' original scale factors of the same name. Interrater correlations between mothers', fathers', and teachers' ratings were also acceptable.

The PQ is a useful screening instrument for assessing the presence of hyperkinesis as well as a limited number of other behavioral problems in children. Its ability to differentiate clinic children from normal children and its sensitivity to drug treatment changes indicate at least

some discriminant validity. Normative data is not yet available for the scale as a whole, however, and further reliability data would be desirable. Information on specific item factor loadings for the PQ is available in the ECDEU Assessment Manual for Psychopharmacology (1976).

Teacher Questionnaire

The Teacher Questionnaire (TQ) (see Table 2B) was developed by Conners as a means of screening for hyperkinesis and other behavior problems in children and as an aid in evaluating drug treatment effects on the basis of teacher observation. It was based on a symptom checklist originally developed by Eisenberg, et al. It contains 41 items grouped in the following categories: Items 1-21 refer to classroom behavior; Items 22-29 refer to attitude towards authority; Item 40 asks for an overall severity rating; Item 41 asks for treatment-effect ratings for academic achievement, overall behavior, group participation, and attitude towards authority.

The TQ is administered as a self-report which is completed by the child's teacher. The form is precoded and can be fully computerized. Ratings are made on a 4-point scale from 0 (not at all) to 3 (very much), depending upon how much the teacher feels the item is descriptive of the child during the past week. The age assessed by the scale ranges from about 6 to 15 years. The TQ is generally administered at the beginning of a study and at one-week intervals during the course of treatment.

Data from 82 boys and 21 girls (mean age = 117.5 months, S.D. = 21.5 months) were factor analyzed. The subjects were clinic children with behavior disorders, hyperactivity, and attention problems. Five factors were identified as follows: 1) Conduct Disorder; 2) Inattentive; 3) Anxious; 4) Hyperactivity; and 5) Social Ability. These factor structures have been found to be stable and capable of discriminating between hyperactive and normal children. Test-retest reliability scores have ranged from .71 to .91, and all five factors have reflected significant before-and-after drug treatment change scores.

A revised Teacher Rating Scale also has been developed. The shortened 28-item version of the TQ was administered to a normative sample of 383 children. A factor analysis of these data yielded three factors as follows: 1) Conduct Problems; 2) Hyperactivity; and 3) Inattentive-Passive. Correlations of the three factors with the original TQ factors are .90, .92, and .86, respectively. Comparisons between the revised Parent Rating Scale and the revised Teacher Rating Scale were .33 for Conduct Problems; .45 for Learning Problems-Inattentive/Passive; .36 for Impulsive/Hyperactive; and .49 for the Hyperkinesis Index.

The TQ is an acceptable instrument for utilizing teacher observations in the assessment of hyperactivity and conduct problems in school-aged children. It is brief, easy to administer, and contains a defined scoring system. It is able to differentiate clinic children from normal children and is sensitive to drug treatment changes. Test-retest and interrater reliabilities are adequate and some normative data are available. Information on specific item factor loadings for the TQ is available in the ECDEU Assessment Manual for Psychopharmacology (1976).

REFERENCES:

Conners CK: A teacher rating scale for use in drug studies with children. Am J Psychiatry 126: 884-888, 1969.

Conners CK: Symptom patterns in hyperkinetic, neurotic, and normal children. Child Develop 41: 667-682, 1970.

Goyette CH, Conners CK, Ulrich RF: Normative data on revised Conners' Parent and Teacher Rating Scales. J Abn Child Psychol 6: 221-236, 1978.

Teacher's Behavior Rating Scale (Cowen)

The Teacher's Behavior Rating Scale (TBRS) (see Table 2B) was developed by Emery Cowen to screen children, ages 6 to 12 years, for maladaptive behavior exhibited in the classroom setting. The scale is made up of 25 items descriptive of deviant classroom behavior. It rates 17 characteristic maladaptive behaviors such as immaturity, disruptiveness, moodiness, destructiveness. Each item is rated on a 4-point scale (from "does not apply" to "shows very strongly") which assesses the degree to which the behavior is exhibited. A global overall judgment of psychiatric impairment is made on a 5-point scale ranging from "well" to "poorly adjusted." The teacher is the informant. Completion time for the scale is estimated at 5 to 10 minutes. The time period assessed is not clear but might be assumed to be "current" behavior. A total score is derived by summing the 25 items, yielding a maximum score of 75. The higher the score, the more maladjusted the behavior.

Reliability between ratings on the TBRS by two teachers on 283 children revealed a correlation coefficient .67. The ability of the TBRS to discriminate among emotionally disturbed and emotionally well children was tested in the following manner: a matched sample of third grade children were assigned to an experimental or a control group. The experimental group consisted of children previously labeled as exhibiting some emotional problems. The control group consisted of emotionally well children. The comparison of TBRS scores revealed that the "E" group was more maladjusted than the control group. Teachers' ratings on the TBRS for the "E" children were higher than teachers' ratings of the "C" group. The TBRS was also used in a seven-year follow-up study of children who were labeled as exhibiting emotional problems at Grade 1. The TBRS scores revealed that children labeled early in life as emotionally ill continued at age 7 to exhibit problems both emotionally and academically. The scale has demonstrated some discriminant validity as a screening instrument and may be potentially useful as a device to predict future pathology.

The TBRS has also been compared to three other teacher assessment rating scales: The Teacher's Adjustive Checklist (TACL); The Ottawa School Behavior Checklist (OSBC); The AML Behavior Rating Scale (AML). The four scales were used by teachers to rate behavior in a sample of over three hundred kindergarten and first-grade children. Results showed that all four scales correlated well with each other. The highest correlation was between the TBRS and the AML ($r = .90$). All four scales are completed rapidly and efficiently.

The TBRS has been used extensively by Cowen and his colleagues at Rochester and appears to be an acceptable screening device. The TBRS has been used in conjunction with IQ scores and the Children's Manifest Anxiety Scale. It is useful in obtaining teacher observations of child behavior. Also, the scale has an ability to identify,

discriminate and, perhaps, predict outcome of children exhibiting problems at an early age.

REFERENCES:

Cowen E, Darwin D, Orgel A: Interrelations among screening measures for early detection of school dysfunction. Psychology in the Schools 8: 135-139, 1971.

Cowen E, Huser J, Beach D, Rappaport J: Parental perceptions of young children and their relation to indices of adjustment. J Consult Clin Psychol 34: 97-103, 1969.

Cowen E, Zax M, Izzo L, Trost M: Prevention of emotional disorders in the school setting: A further investigation. J Consult Psychol 30: 381-387, 1966.

Zax M, Cowen E, Rappaport J, Beach D, Laird J: Follow-up study of children identified early as emotionally disturbed. J Consult Clin Psychol 32: 369-374, 1968.

Children's Assessment Package (Cytrynbaum & Snow)

The Children's Assessment Package (CAP) (see Table 2C) was developed by Cytrynbaum and Snow in order to systematically collect data relevant to clinical utilization. The CAP is a conglomeration of assessment tools which includes the Multi-State Information System (MSIS); a Child Developmental History Form (CDHF); a Child's School Experience History Form (CSEHF); Significant Life Events-Family Form (SLE-F); Family Supports Form (FS); Family Information Form (FI); School Report Form (SR); and Family Assessment Form (FAF). The package was designed in an effort to obtain information about the child with respect to the presenting problem and the etiology of the disorder. It also includes a method of assessing intervention and outcome of treatment.

Information about the child is obtained through multiple informants which include the clinician, the family, the teacher, and hospital or clinic records. Each section of the CAP is briefly outlined and described below.

I. Assessment of the Child

A. MSIS Children's Admission Form is completed by the intake worker. The form is a checklist which is precoded and defined. It assesses the following areas: previous treatment history; physical health problems; school functioning; length and severity of present condition.

B. Child's Developmental History Form is completed by the parent who reports the following information: physical history of mother at birth of identified child; developmental landmarks of child; father's relationship to child.

C. Child's School Experience Form is completed by the parent about the child's participation in school. The parent is asked to rate 23 questions about the child's school behavior on a 4-point scale ranging from "always applies" to "never applies." The questions force judgmental responses on the part of the parent (i.e., "No one in the school system really cares about what happens to my child and whether he/she learns anything").

II. Assessment of the Family System

A. Significant Life Events—Family. Thirteen life events are listed and one of the parents is asked to report which events occurred to the family over the last 24 months. Six response choices are offered: last month; 2 - 3, 4 - 6, 10 - 12, 13 - 24 months ago. In addition, 23 life events specifically related to the family are rated by each parent.

B. Family Supports Form. The parent is asked to report whom they would turn to for help in four specific situations. This form assesses the family's mental health, medical health, and religious support systems. The scale also assessed the frequency of contact, quality of relationship, and the feasibility of use of these supports (e.g., transportation, telephone).

C. Family Information Form. The parent is the informant for this form. Social/demographic information is obtained about the family regarding the families' residence, language, background, physical living conditions, and the occupational level of parents.

III. School Report on Student's Behavior and Performance

In this section the teacher or guidance counselor is asked to report on the child's performance. Fifty-seven behavioral items are rated on a 5-point scale from "certainly applies" to "no basis for making judgment." In addition to these 57 general behavioral items, the teacher reports on the student's general academic performance.

IV. Clinician Report on Family

A. Family Assessment Form. The clinician is asked to complete this form after a full evaluation of the family and the child. The clinician is asked to report on 83 informational items which range from defining the primary parenting figure to rating the marital relationship, parent-child relationship, and family dynamics. A 5-point scale is used to rate these behaviors from "certainly applies or definitely describes relationship/occurs frequently" to "no basis for judgment--lack of information to respond."

B. MSIS Termination Form. The clinician reports at termination of treatment the reasons for cessation of therapy, disposition, child's condition on discharge, and the type of treatment offered. The clinician is asked to rate the child's IQ level, and assign a psychiatric diagnosis.

The CAP is being used by a satellite clinic of the Connecticut Mental Health Center. Its focus is to collect a broad base of information on children in treatment for the development of a psychosocial, community-oriented treatment and data system.

The CAP was designed to facilitate collection of information relevant to clinical utilization. The CAP is in the process of being tested but to date no data have been reported on the instrument's reliability and validity. Some of the limitations of the CAP subscales

relate to the retrospective reporting of events about various stages of the child's development. Retrospective reporting in general is confounded by distortion and problems of recall. In an attempt to be comprehensive, the CAP has become a long and overly-detailed assessment instrument which requires the cooperation of multiple informants. In choosing the CAP as an assessment package the investigator should weigh the costs of such an instrument against the type and quality of information obtained. The CAP may be useful to investigators interested in reorganizing an existing data collection system or assessing the utilization of clinical services.

REFERENCES:

Cytrynbaum S, Snow D, Phillips E, Goldblatt P, Tischler G: Program analysis and community mental health services for children, in Sankar S (ed): Mental Health in Children, Vol. III. PJD Publications, New York, 1976, pp. 661-697.

Children's Assessment Package: A Psychosocial Evaluation Procedure for Child and Family Mental Health Services (CAP). Yale University School of Medicine and Hill Health Center, New Haven, Connecticut. Copyright, January, 1977.

Adolescent Life Assessment Checklist (Gleser, Seligman, Winget & Rauh)

The Adolescent Life Assessment Checklist (ALAC) (see Table 2C) is a 40-item scale* developed by Gleser, et al. It was designed for use with a clinic population, but can be utilized as a general screening instrument to assess psychiatric symptomatology in adolescent children.

The ALAC contains 40 statements about feelings and behavior and is administered as a self-report to children aged 11 to 19 years. A comparable form is also completed by the adolescent's parent(s) or parent surrogate(s), so that information about the child may be obtained from two sources. The respondent is asked to rate each item on a 5-point scale from 0 (never) to 4 (almost always). The time period assessed by the ALAC is left somewhat open as subjects are asked about "recent weeks." The form is precoded and simple to administer. While the time necessary for completion is not stated, it can be assumed to take approximately ten minutes to fill out, even by slow readers.

Data from the ALAC has been analyzed for 356 forms completed by 70 adolescents from a medical ward, 174 patients referred to a clinic for emotional problems, and 112 adolescents from a community population. In all cases, comparable forms were obtained from one of the parents of each child, usually the mother. An oblique rotation factor analysis of the adolescents' responses yielded six factors, with high intercorrelations for the first four factors. The six factors were: 1) Affective Distress; 2) Cognitive Unproductivity; 3) Somatic Complaints; 4) Alienated Peer Relations; 5) Tolerance of Intimacy; and 6) Sociopathy (or Substance Abuse). These six factors were then used to define the subscales of the ALAC. Internal consistency for the subscales ranged from 0.61 for Tolerance of Intimacy to 0.83 for Affective Distress. Correlations between the subscales ranged from 0.22 to 0.67.

For the adolescent samples, separate analyses were performed by sex, race, and age, as well as sample source (i.e., medical versus clinic versus community). Females scored higher on Affective Distress, Somatic Complaints, and Cognitive Unproductivity, while Blacks scored lower on Distress and higher on Somatic Complaints. Age effects indicated a negative effect with Somatic Complaints and Alienated Peer Relations. A method for obtaining corrected scores for age, race, and sex effects was devised on the basis of the normative data.

The ALAC was generally able to differentiate the clinic and medical samples from the community sample, but the clinic and medical samples were not well differentiated from each other. Analyses of the parents' responses showed an improved discrimination between medical and clinic populations. According to these data, parents of the medical sample reported fewer symptoms than their children did, while parents of the clinic sample reported more symptoms than their children did.

*Item 41 of the checklist has been dropped because of frequent misinterpretation by respondents.

The ALAC is a fast and simple-to-use screening device for assessing limited forms of symptomatology in adolescent populations. Although acceptable internal consistency was demonstrated, interrater (parent/child) reliability warrants further examination and test-retest reliability has yet to be explored. Discriminant validity of the ALAC remains equivocal as it failed to adequately differentiate the adolescent clinic and medical samples. A test of concurrent validity between the ALAC and some other measure of psychopathology would also be recommended as a means of further scale refinement, particularly in light of the differentiation problems mentioned above.

REFERENCES:

Gleser G, Seligman R, Winget C, Rauh JL: Adolescents view their mental health. J Youth Adolescence 6: 249-263, 1977.

Gleser G, Seligman R, Winget C, Rauh JL: Parents view their adolescents' mental health. Unpublished manuscript.

The Minnesota Child Development Inventory (Ireton and Thwing)

The Minnesota Child Development Inventory (MCDI)(see Table 2C) was developed by Ireton and Thwing as a screening instrument to identify psychiatric impairment in preschool children. The MCDI inventory consists of 320 statements describing the behaviors of the preschool child. The parent is the informant and reports as to the presence or absence of the behavioral item. The format is precoded and takes about 30 to 45 minutes to complete. A final profile of the child's development is derived from the 320 items and is related to norms for the child's age and sex.

The 320 items of the MCDI are grouped into eight subscales: Gross Motor; Fine Motor; Expressive Language; Comprehension/Conceptual; Situation/Comprehension; Self Help; and Personal/Social. The eighth scale is a global assessment of general development. The Gross Motor scale consists of 34 items and rates behaviors such as strength, balance, and coordination. The Fine Motor scale consists of 44 items and assesses such skills as eye-hand coordination. Fifty-four items are rated on the Expressive Language scale which assesses verbal and gestural language. The Comprehension/Conceptual scale consists of 67 items, and measures the child's understanding of simple concepts. The Situation/Comprehension scale consists of 44 items and measures the child's understanding of nonverbal behavior and interactions with the environment. Thirty-six items rate the child's Self-Help skills such as eating, dressing, etc. Thirty-four items assess Personal/Social behaviors such as independence, social interactions, and concern for others. The General Development scale consists of 131 items and provides an overall index of development.

The MCDI was standardized on 796 white children, ranging in age from six months to six-and-a-half years (395 males; 401 females). The scale was able to delineate behavioral problems in children at different ages. The MCDI is scored on the basis of the child's development and how the child is judged to perform when compared with what is expected for his age group. A child's score is expected to fall at or above the mean score of 30% of children younger than himself. If a child is functioning below the mean score achieved by 30% of the children below his age level, he is considered functioning below his level of expectation. Only about 2% of the general population are expected to fall below this level.

Internal consistency for the eight subscales was tested by the split half method. The reliability coefficients for the general development scale (ages 1 to 6 years) fell between .80 and .90. However, lower reliability coefficients are reported for children younger than one year and older than six years of age on this subscale.

The MCDI attempts to evaluate children's development on the basis of age-specific norms. Although specific reliability and validity coefficients were not reported separately for each of the eight

subscales, the authors reported that these data were adequate. The general developmental scale was reported as the most reliable and capable of providing age-specific comparisons. The authors suggest that the MCDI be used in conjunction with IQ scales and other psychiatric rating measures.

The MCDI appears to be an acceptable instrument for assessing behavioral functioning in preschoolers. Ireton, et al. question the ability of mothers to report children's behavior reliably, but do, in fact, rely on mothers as informants. They feel that the interpretation of the results of the inventory should be considered in light of the mother's educational level and her ability to comprehend and objectively report the child's functioning. They feel that there is a tendency for mothers to provide distorted information. Despite this limitation, the scale is useful as a means of describing whether a child is functioning above or below what is expected for his/her age and sex.

REFERENCE:

Ireton H, Thwing E: The Minnesota child development inventory in the psychiatric development evaluation of the preschool age child. Child Psychiatry and Human Development 3: 102-114, 1972.

The Symptom Checklist (Kohn & Rosman)

The Symptom Checklist (SCL) (see Table 2C) was developed by Kohn and Rosman to screen for behavioral problems manifested by preschool children (ages 3 to 6 years). Kohn and Rosman also developed a companion scale, the Social Competence Scale (SCS) which measures social functioning in preschool children. The SCS was designed to be used in conjunction with the SCL and is therefore also discussed in this review. The SCL is a 58-item inventory of behaviors considered by the authors to be clinically significant. The SCS is composed of 90 items and designed to measure the child's social functioning in a preschool environment. The time period assessed is unclear but probably focuses on "current" behavior.

The scales were tested on a sample of 407 children in a day-care setting. The children were independently rated by two full time teachers. In addition to the 407 children in the day-care center, samples were derived from a therapeutic day-care group and a mental hospital group. The data derived from the two instruments were pooled and factor analyzed. The authors advocate a two-factor model for data analysis when the scales are used in conjunction with each other. The factors derived from the SCL were: Apathy/Withdrawal and Anger/Defiance. Two bipolar factors were also derived from the SCS items. One factor was Interest-Participation vs. Apathy-Withdrawal, and the second factor was Cooperation-Compliance vs. Anger-Defiance. The interrater reliability coefficient for the two factors of the Symptom Checklist was .57. The SCS interrater reliability coefficients for Factors 1 and 2 were .62 and .66, respectively. Interrater reliability for the pooled data from the two scales was .73. Correlation coefficients obtained for the SCS and SCL factors ranged from -.75 to -.79.

In order to test the scales' validity, a study was initiated of 1,232 randomly-selected children enrolled in a day-care center. The data derived from the normal sample were compared to data on the three previously mentioned "clinic" samples. The results showed that normal children can be differentiated from ill children by the mean factor scores on Factor 1 (Apathy-Withdrawal) and Factor 2 (Anger-Defiance). The mean factors for the disturbed group were higher than for the well group. The scales, however, did not discriminate among the various disturbed groups since these groups had similar high mean factor scores (e.g., the therapeutic day-care group was not differentiated from the mental hospital group). Boys and girls showed different patterns of disturbance on the SCL and SCS. All the "clinic" boys showed high mean factor scores for Factors 1 and 2, while only "clinic" girls in the therapy group were high on both factors. In general, the girls in the "clinic" groups showed high means only on Factor 1. The authors considered high mean scores on both Factors 1 and 2 or on Factor 2 alone as indicative of greater pathology for females.

The authors have tentatively outlined cut-off points for detecting illness with the SCL and SCS. Using the two-factor model,

they suggest 1.2 standard deviations intercept for Factor 1 and 2 combined as a cut-off for boys, and 1.0 standard deviation intercept for both factors for girls. Since these cut-off points have not been tested extensively, they are considered guidelines.

The SCL and SCS appear to be effective screening instruments which can be used efficiently by teachers to rate children's behavior. Information on a normative sample is available. The scales may be potentially useful in epidemiological studies since discriminations between well and ill children are made with the SCL, as well as with the SCS.

REFERENCE:

Kohn M, Rosman B: A two factor model for emotional disturbance in the young child: Validity and screening efficacy. J Child Psychol Psychiatry 14: 31-56, 1973.

Louisville Behavior Checklist (Miller)

The Louisville Behavior Checklist (LBCL) (see Table 2D) was developed by Miller to evaluate behavioral and emotional problems in children. The checklist contains 164 behaviors which are rated as true or false by the parent. The behaviors to be rated are observable rather than inferential. The questions appear in a precoded booklet and are geared to a sixth-grade literacy level. Completion time is estimated at 30 minutes. The ages of the children assessed range from 3 to 18 years and are grouped as follows: 3 - 6 years; 7 - 13 years; and 14 - 18 years. A separate booklet for each age group has been developed.

Parental ratings of 263 male children, aged 6-12 years, attending the Louisville Child Clinic were factor analyzed using a principal component solution. The clinic sample included outpatient, short-term inpatient, partially hospitalized, and delinquent groups. Eight factor scales were derived: 1) Infantile Aggression; 2) Hyperactivity; 3) Antisocial; 4) Social Withdrawal; 5) Sensitivity; 6) Fear; 7) Academic Disability; and 8) Immaturity. Three broad band factors were also developed as a result of a second order principal component analysis of the eight normalized, intercorrelated factor scales. These factors are: 1) Normal Irritability; 2) Rare Deviance; and 3) Prosocial Behavior. The factors derived from the LBCL were similar to those of other scales of psychopathology and suggest some level of content validity. Split-half reliability fared less favorably, and is indicative of problems with the internal consistency of the scale.

While the factors above were derived on the basis of data from a clinic population, general population norms are also available based on a sample of 236 male and female school children, aged 7 to 12 years. Data for the normal sample factored into eight comparable scales. A total disability scale is obtained by summing the number of deviant behaviors across factors. On average, children in the normal population exhibited between 11 and 13 deviant behaviors, with 85% below a total disability score of 25. A relationship was found between the number of deviant behaviors reported for the child and the child's social class and IQ. Differences between males and females for types of deviant behaviors were found only for the prevalence of learning disorders.

Miller is currently reanalyzing the LBCL in an effort to isolate behavioral clusters that are comparable to the Child Behavior Checklist by Achenbach. This reanalysis is resulting in a redefinition of the factor scales previously reported by the author. Miller is also conducting further tests of the validity and reliability of the LBCL. These data will be derived on the basis of longitudinal and follow-up studies, but is not as yet ready for publication. An additional study is underway to isolate a suicide predictor subscale of the LBCL. Fourteen items have been identified as potentially "stable predictors" of suicidal behavior as a result of pilot data from two samples of

children with a history of suicidal threats.

The LBCL is a screening device of psychopathological behavior in children. The scale has not been able to demonstrate adequate levels of internal consistency and lacks the necessary reliability and validity data. It does appear to have promise as it has found behavioral dimensions comparable to those of other scales of psychopathology. The author is in the process of obtaining the necessary psychometric information and expects to provide additional normative data on general and clinical populations of children. The LBCL must currently be considered in the preliminary stages of development. The LBCL is published by Western Psychological Services, Los Angeles, California and may be computer scored. Information about the general population norms and clinical norms are also available through the publisher.

REFERENCES:

Miller L, Barrett C, Hampe E, Noble H: Factor structure of childhood fears. J Consult Clin Psychol 34: 264-268, 1972.

Miller L: Method factors associated with assessment of child behavior: Fact or artifact? J Abn Child Psychol 14: 209-219, 1976.

Miller L, Hampe E, Barrett C, Noble H: Children's deviant behavior within the general population. J Consult Clin Psychol 37: 16-22, 1971.

Miller L: Louisville behavior checklist for males 6-12 years of age. Psychol Rep 21: 885-896, 1967.

Miller L: Social behavior checklist: An inventory of deviant behavior for elementary school children. J Consult Clin Psychol 22: 134-144, 1972.

Miller L: Personal communication, 1979.

Ross A, Lacey HM, Parton D: The development of a behavior checklist for boys. Child Development 36: 1013-1027, 1965.

Louisville School Behavior Checklist (Miller)

The Louisville School Behavior Checklist (SBCL) (see Table 2D) was developed by Miller as an adaptation of the Pittsburgh Adjustment Survey scale. The Pittsburgh Adjustment Survey was designed to assess emotional and social adjustment of children ages 6 to 12 years. The School Behavior Checklist consists of 96 items; 80 items of the Pittsburgh Adjustment Scale, 14 additional learning disability items and 2 anxiety questions. The SBCL is published in a precoded manual which may be hand or computer scored. It is administered to children aged 3 to 13 years. Teachers rate children of elementary school age as to the presence or absence of the behavior. The time period rated is the last two months. Completion time is estimated at 15 to 20 minutes.

The SBCL was tested on a sample of 5,373 male and female children. Male children appeared to score higher than females on the SBCL. Deviant SBCL scores were inversely related to IQ. Five factor scales were derived: 1) Low Need Achievement; 2) Aggression; 3) Anxiety; 4) Academic Disability; and 5) Extraversion. Need achievement was highly correlated with intelligence and inversely related to behavior problems. The data from 182 children were selected to examine split-half and test-retest reliability. Split-half reliabilities for the factors ranged from .70 to .93, except for the Hostile Isolation subscale (.44). Test-retest reliabilities ranged from .70 to .89, again except for the Hostile Isoaltion dimension (.40).

The SBCL is an acceptable tool for obtaining teacher information of behavioral malfunction in the school setting and can be compared to general population norms. More extensive testing of the instrument is indicated, particularly with respect to discriminant validity, interrater reliability, and the stability of the behavioral dimensions measured.

REFERENCES:

Miller L, Barrett C, Hampe E, Noble H: Factor structure of childhood fears. J Consult Clin Psychol 34: 264-268, 1972.

Miller L: Method factors associated with assessment of child behavior: Fact or artifact? J Abn Child Psychol 14: 209-219, 1976.

Miller L, Hampe E, Barrett C, Noble H: Children's deviant behavior within the general population. J Consult Clin Psychol 37: 16-22, 1971.

REFERENCES (continued)

Miller L: Louisville behavior checklist for males 6-12 years of age. Psychol Rep 21: 885-896, 1967.

Miller L: Social behavior checklist: An inventory of deviant behavior for elementary school children. J Consult Clin Psychol 22: 134-144, 1972.

Miller L: Personal communication, 1979.

Ross A, Lacey HM, Parton D: The development of a behavior checklist for boys. Child Develop 36: 1013-1027, 1965.

Behavior Problem Checklist (Quay & Peterson)

The Behavior Problem Checklist (BPC) (see Table 2D) was developed by Quay and Peterson to assess emotional disorders in children and adolescents. The scale was derived on the basis of factor analytic studies of behavior ratings and case history material. It is being distributed as a commercial publication and is accompanied by an extensive manual that describes its use, history, psychometric background, and scoring procedure.

The BPC is primarily a screening instrument of behavioral disturbance in children between the ages of 5 and 17 years. It contains 55 items rated on a 3-point scale from 0 (not a problem) to 2 (severe problem). The precoded form is completed by parents, teachers, or other professionals familiar with the child. Completion time is not stated but may be expected to be brief. The time period assessed is assumed to be "current" behavior. The scoring system for the checklist is based on its four subscales: 1) Conduct Problems; 2) Personality Problems; 3) Inadequacy-Immaturity; and 4) Socialized Delinquency. The fourth subscale is reported to be the least well developed and investigators are advised to interpret it with greater caution. While the statistical derivation of the four dimensions was designed to be orthogonal, ratings on the subscales themselves are often correlated.

The psychometric data reported for this scale were extensive. Internal consistency coefficients based on the ratings of 1,000 delinquents were .89 for Conduct Problems; .83 for Personality Problems; and .68 for Inadequacy-Immaturity. Interrater reliability between teachers ranged from .22 to .83, depending upon the study sample and subscale involved. Reliability ratings between mothers and fathers was acceptable (.67 to .78), but parent-to-teacher comparisons were considerably lower (.33 to .41 for mother/teacher ratings; .23 to .32 for father/teacher ratings). Content validity for the checklist was assumed as a function of the method of item selection while concurrent validity was established by comparisons between BPC scores and clinician judgments. Good discrimination between patient and nonpatient samples has been reported using parent ratings and teacher ratings. Relationships have also been demonstrated between subscales of the BPC and various other measures of child behavior (e.g., activity level, academic achievement).

The BPC is an adequate screening device for assessing behavioral disorders in children. It is brief, easy to administer, and simple to score. Extensive data have been reported regarding the scale's use and its factor structure. Interrater reliability of the instrument may be increased by further refining some of the items so that they are more specific and operationally defined.

REFERENCES:

Quay HC: Measuring dimensions of deviant behavior: The behavior problem checklist. J Abn Child Psychol 5: 277-287, 1977.

Werry JS and Quay HC: The prevalence of behavior symptoms in younger elementary school children. Amer J Orthopsychiat 41: 136-143, 1971.

The Quincy Behavior Checklist (Reinherz & Kelfer)

The Quincy Behavior Checklist (QBC) and the Quincy Parent Questionnaire (QPQ) (see Table 2D) were developed by Reinherz and Kelfer as screening instruments to identify social and emotional problems in 4 and 5-year-olds entering kindergarten. The scales have undergone at least three revisions and several pretests. The final version of the QBC is composed of 38 items, rated on a 5-point scale, ranging from "always" to "never." The QBC asks the informant to rate the child's behavior during the past two months. The QPQ consists of 49 items which ascertain information on demographic history and developmental milestones. The QBC is completed by school personnel and/or the parent(s), while the QPQ is completed only by the parent(s). Both scales can be administered in about 20 to 30 minutes.

The 38 items of the QBC assess 11 areas of social-emotional dysfunction such as: Aggression; Hyperactivity/Distractibility; Depression; Social Withdrawal; Fear/Anxiety; Apathy/Lack of Initiative; Somatization; Motoric Problems; Language Problems; Compulsivity; and Immaturity. The scale was standardized on 750 children entering kindergarten. Frequency distributions are available for this population. Test-retest reliability studies among parents demonstrate reliability coefficients for items which range from .49 to .84, with a median of .68. Validity of the scales has as yet to be demonstrated, although the authors discuss the instrument's "face validity."

The QBC and its companion scale, the QPQ, were developed to be used for early identification of problems in preschool children. Both scales need to be further refined and validated. The authors are currently collecting data in a longitudinal study to test the scales' predictive validity. The results of this study should be available during the Fall of 1979.

REFERENCES:

Reinherz H, Kelfer D: Identifying preschool children at risk. National Institute of Mental Health PRogress Report, September 23, 1976 to JUne 30, 1977, NIMH Grant #R01 MH27458-02.

Reinherz H, Kelfer D, Griffin C, Holloway S: Developing a tool for assessing social-emotional functioning of preschool children. Presented at Annual Meeting of American Association of Psychiatric Services for Children, Washington, D.C., November 19, 1977.

Reinherz H: Personal communication, 1979.

Behavior Checklist (Richman & Graham)

The Behavior Checklist (BCL) (see Table 2E) was developed by Richman and Graham as a 19-item self-report version of the Behavioral Screening Questionnaire. For this scale the parent is asked to rate the child's behavior over the last four weeks. The parent selects one of 3-4 descriptive phrases characterizing the child's behavior. The BCL takes a few minutes to complete and individual items are summed to derive a total score.

Sixty-eight parents rated their 2 1/2 to 3 1/2-year-old children on the BCL on two occasions, approximately four weeks apart. Test-retest reliabilities showed a correlation of .81 between ratings. The validity of the BCL as an instrument which can discriminate between psychiatrically impaired and normal children was tested. A sample of 705 three-year-olds were screened for behavior problems with the Behavioral Screening Questionnaire. Each parent also completed the BCL for his/her child. A score of 10 points or more in the BSQ was considered criterion for identifying the problem group; 10 or less identified the control group. One hundred matched pairs of problem cases vs. control cases were then independently rated by clinicians to determine the severity of the problem.

The comparison of the BSQ and the BCL indicated that the BCL produced a higher rate of false positives and false negatives. A 12.6% false positive rate was reported for the checklist while the interview false positive rate was 6.8%. The BCL false negative rate was 30.4% while the BSQ showed a 9.8% false negative rate. The BCL could only discriminate 82% of the moderate and severe cases while the BSQ identified all of these cases. The authors suggest that the BCL be used as a preliminary screening device to identify ill children and that the checklist then be followed with more rigorous assessment procedures.

The BCL is of value as a preliminary screening device. It is short, easy to complete and, as a parent self-report, can be used in clinic settings as an adjunct to clinical assessments. It may also be valuable in epidemiological studies as a tool for making broad discriminations between well and ill populations.

REFERENCES:

Richman M: Is a behavior checklist for preschool children useful? In Graham PJ (ed): Epidemiological Approaches in Child Psychiatry. Academic Press, New York, 1977, pp. 125-137.

Richman M: Short-term outcome of behavior problems in three year old children. In Graham PJ (ed): Epidemiological Approaches in Child Psychiatry. Academic Press, New York, 1977, pp. 165-179.

Richman M, Graham P: A behavioral screening questionnaire for use with three year old children. Preliminary findings. J Child Psychol Psychiat 12: 5-33, 1971.

Children's Behavior Questionnaire for Teachers (Rutter)

The Children's Behavior Questionnaire for Teachers (CBQ-T) (see Table 2E) was developed by Rutter as a method of obtaining teacher evaluations of psychiatric disturbance in children. It was designed as a screening device for differentiating between children with and without a behavioral disorder.

The CBQ-T contains 26 statements describing a child's behavior. Each statement is rated on a 3-point scale from 0 (doesn't apply) to 2 (certainly applies). Ratings are summed across items to produce a total score ranging from 0 to 52. A neurotic subscore is obtained by summing the ratings for items 7, 10, 17, and 23; an antisocial subscore is obtained by summing the ratings for items 4, 5, 15, 19, 20, and 26. The CBQ-T is completed as a self-report by teachers on the basis of the "child's behavior in the past twelve months." The age of the child assessed appears to be between 6 and 13 years.

The CBQ-T was administered to four teachers who rated 80 (40 male and 40 female) seven-year-old children and then rated them again two months later. Test-retest reliability for the total scores was .89. Interrater reliability based on ratings of 70 (35 male and 35 female) children was .72 for total scores. In order to ascertain the scale's discriminative ability, scores of 86 children (aged 9 to 13 years) in the general population were compared with scores of 109 clinic children. A total score of 9 or more was selected as the best discriminant identifying 11% of the boys and 3 1/2% of the girls in the general population as having a psychiatric disorder as compared with 80% of the boys and 60% of the girls in the clinic sample. The scale tends to identify a slightly higher proportion of antisocial (90%) than neurotic (80%) children.

The questionnaire's diagnostic ability was also compared with a standardized psychiatric interview conducted by a child psychiatrist. Of 133 children who received a score of 8 or less on the CBQ-T, 2.3% were considered to have a definite psychiatric disorder according to the psychiatric interview, and 24.1% were viewed as possibly disordered. Of 157 children with scores of 9 or more on the CBQ-T, 20% were rated as abnormal by a psychiatrist, 48% were rated as possibly disordered, and 32% were rated as normal. A comparison of the questionnaire's diagnostic ability with the diagnostic information obtained from multiple other sources (school, parent, and child) yielded a 43% rate of agreement.

The CBQ-T has now been tested on a number of populations, including an Italian sample of 418 children between 6 and 10 years of age (252 males and 166 females). Test-retest reliabilities for this sample were .80 for the total score, .68 for the neurotic subscore, .72 for the antisocial subscore, and between .33 and .85 for individual items. Interrater reliabilities were .73 for the total score, .35 for the neurotic subscore, .72 for the antisocial subscore, and between .13 and .95 for individual items. Differentiation between clinic and

nonclinic children was again best achieved with a cut-off criterion of 9 or more on the total scale score, identifying 73% of the boys and 100% of the girls in the clinic sample, as compared with 11.9% of the boys and 5.5% of the girls in the general population.

The Children's Behavior Questionnaire also has a form available for completion by parents. It includes most of the questions in the teacher's form and some additional items about the child's speech, sleeping and eating habits and physical symptoms. Ratings are again based on the past twelve months and a 3-point scale is used.

The CBQ-T is an adequate screening instrument which is brief and easy to administer and score. It is limited in scope, particularly for disorders such as obsessive-compulsive disorder, anorexia nervosa, etc., but is capable of crude clinical distinctions ("Antisocial" vs. "Neurotic"). It does not compare well, however, with judgments of psychiatric disturbance made on the basis of a psychiatric interview and would probably benefit from further testing and refinement.

REFERENCES:

Kolvin RF, Garside R, Nicol AR. Leitch I, MacMillan A: Screening school children for high-risk of emotional and educational disorder. Brit J Psychiatry 131: 192-206, 1977.

Rutter M: Classification and categorization in child psychiatry. J Child Psychol Psychiat 6: 71-83, 1965.

Rutter M: A children's behavioral questionnaire for completion by teachers: Preliminary findings. J Child Psychol Psychiat 8: 1-11, 1967.

Zimmermann-Tansella C, Minghetti S, Tacconi A, Tansella M: The children's behavior questionnaire for completion by teachers in an Italian sample: Preliminary results. J Child Psychol Psychiat 19: 167-173, 1978.

Devereux Elementary School Behavior Rating Scale (Spivack & Swift)

The Devereux Elementary School Behavior Rating Scale (DESB) (see Table 2E) was developed by Spivack and Swift to assess classroom behavior and the relationship of this behavior to academic performance. Teachers rate the behavior of children, aged 5 to 12 years, exhibited in the classroom setting during the past month. Raters are asked to compare the index child's behavior to that of "normal" children of the same age. Forty-seven items are rated on a 5-point scale which codes the frequency of occurrence of the behavioral item from 1 (very frequently) to 5 (never), as well as the severity of the symptom from 1 (not at all) to 7 (extremely).

The DESB is presented in a precoded manual, with instructions for administration and the scoring of responses. The scale has been extensively tested on clinic populations and scored by converting total raw score factor items into standard deviation score units (z scores). The scale is published with a profile delineating the standard distribution of clinic children.

As with the DCB (see p 55), the DESB was administered to 107 male and 33 female children aged 5 to 12 years. The children were classified diagnostically by a psychiatrist in the following manner: Schizophrenic Reaction; Personality Diagnosis; Chronic Brain Syndrome with Convulsions; and Other. Children were then rated by teachers and teachers' aides. Items focused on classroom behavior, interactions with peers and teachers, acting out behavior, etc. Interrater reliability for the DESB was reported to be .61 to .87.

Data from the rating scales of the 140 children were subjected to a principal component factor analysis with orthogonal rotations. Eleven factors were derived and are listed in the DESB Profile contained in the Appendix. The scale has also been used with latency age boys (7-12 years) in residential treatment programs (by Schaefer) to assess treatment efficacy. The DESB was able to reflect change in the academic performance and social independence factors for this group of boys.

The DESB is potentially useful as an assessment device and as an outcome measure. It provides some valuable ancillary data from teachers regarding classroom behavior, which can then be related to other symptomatic behavior. Again, it lacks normative data on normal children and so would not be recommended for use with nonclinic populations. It is also subject to the same criticisms as the DCB regarding the biased sex data base.

A copy of the DESB is contained in the Appendix.

REFERENCES:

Schaefer CE, Millman HL: The use of behavior ratings in assessing the effect of residential treatment with latency age boys. Child Psychiatry and Human Development 3: 157-164, 1973.

Spivack G, Haimes PE, Spotts J: Devereux adolescent behavior scale manual. Devereux Foundation, Devon. Pa., 1967.

Spivack G, Levine M: The Devereux child behavior rating scales: A study of symptom behaviors in latency age atypical children. Amer J Ment Defic 68: 700-717, 1964

Spivack G, Spotts J: Devereux child behavior rating scale manual. Devereux Foundation, Devon, Pa., 1966.

Spivack G, Swift MS: Devereux elementary school behavior rating scale manual. Devereux Foundation, Devon, Pa., 1967.

Devereux Child Behavior Rating Scale (Spivack & Swift)

The Devereux Child Behavior Rating Scale (DCB) (see Table 2E) was developed by Spivack and Swift to assess behavioral symptoms in children aged 5 to 12 years. The scale is presented in a precoded manual with instructions for administration and the scoring of responses. The scale has been extensively tested on clinic populations and scored by converting total raw score factor items into standard deviation score units (z scores). The scale is published with a profile delineating the standard distribution of clinic children.

The child's behavior is rated by professionals, paraprofessionals or parents. Completion time is approximately 15 minutes. The rater is asked to assess behavior occurring over the last two weeks and is requested to compare the child's behavior with normal children of his/her age. Ninety-seven items are rated on a 5-point scale which codes the frequency of occurrence of the behavioral item from 1 (very frequently) to 5 (never), as well as the severity of the symptoms from 1 (not at all) to 8 (extremely).

The DCB was administered to 107 male and 33 female children, aged 5 to 12 years, enrolled in the Devereux residential treatment program. Intelligence quotients were measured independently and diagnostic classifications were also independently assigned by a psychiatrist. The children were classified in the following manner: Schizophrenic Reaction; Personality Diagnosis; Chronic Brain Syndrome; Chronic Brain Syndrome with Behavioral Reaction; Chronic Brain Syndrome with Convulsions; and Other. Children were then rated on the DCB by professional staff members and day care workers. Items focus on self-care; language: communication; emotional responses; physical development; coordination; and socialization. Interrater reliability coefficients reported for DCB were between .69 and .93.

Data from the rating scales of the 140 children were subjected to a principal component factor analysis with orthogonal rotations. Fifteen factors were derived and related to diagnostic groups previously assigned by psychiatrists. Eight of the 15 factors did not differentiate among diagnostic groups, but were related to IQ in some cases. The anger and aggression factors did not significantly differentiate among diagnostic groups. The following is a breakdown of factors and how they related to diagnostic groups:

Diagnostic Groups	Factors
Chronic Brain Syndrome	Need for Social Contact Disinhibition of Overactivity of Behavior Cleanliness Motoric Dysmaturity
Schizophrenic-Reaction	Receptor Hypersensitivity and Avoidance Autonomy--Competence
Personality Disorder	Language Maturity

Interrater reliability for each factor was expressed in terms of intraclass correlation coefficients derived from the F-ratio for each factor. There were discrepancies in ratings among supervisors and house-parents on four factors. In spite of these differences, raters tended to correctly classify children who were diagnostically similar on behavior items.

The DCB has been used in other residential treatment programs to assess the effectiveness of treatment in adolescent boys 7 to 12 years of age. Results of the Schaefer study showed that changes in DCB ratings occurred after twelve months of participation in a treatment program, indicating the scale's sensitivity to behavioral change as a function of positive interventions. Six of the first ten factors of the DCB were found to be most capable of reflecting this behavioral change.

The DCB is potentially useful as an outcome measure for residential treatment programs. It lacks normative data on normal children and so would not be recommended for use with nonclinic populations. In addition, the clinic data base was primarily male and may have biased distribution results. The DCB would benefit from additional analyses performed separately by sex of child, so that differential patterns of symptom clusters might be examined.

REFERENCES:

Schaefer , Millman HL: The use of behavior ratings in assessing the effect of residential treatment with latency age boys. Child Psychiatry and Human Development 3: 157-164, 1973.

Spivack G, Haimes PE, Spotts J: Devereux adolescent behavior scale manual. Devereux Foundation, Devon, Pa., 1967.

Spivack G, Levine M: The Devereux child behavior rating scales: A study of symptom behaviors in latency age atypical children. Amer J Ment Defic 68: 700-717, 1964.

Spivack G, Spotts J: Devereux child behavior rating scale manual. Devereux Foundation, Devon, Pa., 1966.

Spivack G, Swift MS: Devereux elementary school behavior rating scale manual. Devereux Foundation, Devon, Pa., 1967.

Devereux Adolescent Behavior Rating Scale (Spivack, Spotts & Haimes)

The Devereux Adolescent Behavior Rating Scale (DAB) (see Table 2F) was developed by Spivack, Spotts, and Haimes to define symptom patterns in clinically disturbed adolescents and to discern the implications of these patterns for treatment and prognosis. An experimental form of the DAB, consisting of 172 items, was derived on the basis of information from the clinical literature, clinical impressions, clinical records, and other behavior assessment scales.

The experimental form of the DAB was tested on 640 adolescents aged 13 to 18 years. The sample was derived from the Devereux schools, several training schools, a children's home, and foster homes. These children had first been independently assigned to diagnostic categories such as: within the normal range; personality disorder; neurotic; psychotic; schizophrenic and chronic brain syndrome. The adolescents were then evaluated on the DAB and these data were subjected to a factor analysis with orthogonal rotations. Eighteen factors were derived as follows: 1) Unethical Behavior; 2) Defiant-Resistive; 3) Dominating-Sadistic; 4) Poor Emotional Control; 5) Schizoid Withdrawal; 6) Bizarre Cognition; 7) Bizarre Action; 8) Heterosexual Interest; 9) Need Approval, Dependency; 10) Physical Inferiority-Timidity; 11) Poor Coordination; 12) Hyperactive-Expansive; 13) Emotional Detachment; 14) Anxious, Self-Blame; 15) Poor Self-Care; 16) Untidy-Unclean; 17) Paranoid Thinking; 18) Distractibility.

As a result of the analysis of the initial form, a revised DAB was developed. It consists of 84 items rated on a 5-point scale from 1 (very frequently) to 5 (never) for the frequency of occurrence of the behavioral item, and an 8-point scale from 1(not at all) to 8 (extremely) for the severity of the symptom. The adolescent's behavior is rated by psychiatric professionals or paraprofessionals. The rater is asked to assess a subject's behavior for the "last two weeks" and to assess this behavior in relation to the behavior of normal children of the same age. The scale is presented in a precoded manual with instructions for administration and the scoring of responses. DAB scores are presented in standard units as a result of the conversion of total factor item raw scores into standard deviation score units (z scores). The scale is published with a profile delineating the standard distribution of clinic children.

The reliability of the factors in the DAB was calculated on the basis of the internal consistency of the items comprising the factor. These reliability coefficients ranged from .57 to .86; most of the factor coefficients were quite acceptable. A comparison of factors with the diagnostic categories of the children evaluated demonstrated the emergence of logical relationships between the derived factors and the diagnostic groups and provided some evidence for the concurrent diagnostic validity of the scale. The DAB was also compared with a self-rating scale for adolescents. Results indicated that the DAB

factors were generally similar to those derived from the adolescent-informant rating scale, although adolescents tended to rate themselves more favorably than observers.

The DAB is an acceptable screening and diagnostic instrument for use with adolescents. It was standardized on a large sample of both clinic and nonclinic children and has, in general, demonstrated adequate internal consistency, construct validity, and some concurrent validity. Further testing of interrater reliability and discriminant validity are recommended.

REFERENCES

Maguire MS: A self-inventory scale of adolescent symptomatology based on Devereux adolescent behavior scale. Adolescence VIII: 277-284, 1973.

Schaefer CE, Millman HL: The use of behavior ratings in assessing the effect of residential treatment with latency age boys. Child Psychiatry and Human Development 3: 157-164, 1973.

Spivack G, Haimes PE, Spotts J: Devereux adolescent behavior scale manual. Devereux Foundation, Devon, Pa., 1967.

Spivack G, Levine M: The Devereux child behavior rating scales: A study of symptom behaviors in latency age atypical children. Amer J Ment Defic 68: 700-717, 1964.

Spivack G, Spotts J: Devereux child behavior rating scale manual. Devereux Foundation, Devon, Pa., 1966.

Spivack G, Spotts J: Adolescent symptomatology. Amer J Ment Defic 72: 74-95, 1967.

Spivack G, Swift MS: Devereux elementary school behavior rating scale manual. Devereux Foundation, Devon, Pa., 1967.

SECTION 4. SPECIFIC SYNDROME SCALES:

Hyperactivity	(3 Scales)
Anxiety	(1 Scale)
Depression	(2 Scales)
Fear	(1 Scale)

Hyperactivity and Withdrawal Rating Scale (Bell, Waldrop & Weller)

The Hyperactivity and Withdrawal Rating Scale (HWRS) (see Table 3A) was developed by Bell, Waldrop and Weller to examine the interrelationships of hyperactive and withdrawn behavior, and to establish a systematic means of rating these behaviors. The scale is composed of six subscales that describe hyperactivity and three subscales that describe withdrawal. The hyperactivity subscales include: 1) Frenetic Play; 2) Induction of Intervention; 3) Inability to Delay; 4) Emotional Aggression; 5) Nomadic Play; 6) Spilling, Throwing. The withdrawal subscales include: 1) Vacant Staring; 2) Closeness to Adult Base; 3) Chronic Fearfulness. Each subscale is rated on an 11-point scale with rating definitions grounded in specific, observable behaviors. The assessments are made by teachers and other professionals able to observe the preschooler's behavior. Only behavior exhibited in the week prior to the rating is assessed. Completion time for the scale is not specified.

Four pilot studies were conducted to develop and standardize this diagnostic instrument. A total of 202 preschool children derived from four nonclinical settings were rated. Modifications of the scale were made after each pilot study. Teacher ratings as well as home visitor ratings of the child's behavior were made. Interrater reliability studies of each scale item were conducted. The reliability coefficients reported ranged from .74 to 1.0. In the final version of the HWRS only those items were used which proved reliable among teachers.

A factor scoring system was developed for the HWRS. All scores are weighted. The factor score is derived from the sum of the z-score equivalents for the number of scales in that factor. This factor scoring system was developed to establish guidelines for the behaviors rated. A score of 480 or greater is considered criterion for the presence of hyperactivity, while a score of 240 or greater is criterion for withdrawal. The correlation between the hyperactivity and withdrawal composite scores differed for male and female children. In the final pilot sample of 43 males and 31 females the following was found: male hyperactivity was associated with or expressed by nomadic play behavior, while female hyperactivity was expressed by emotional aggression.

The HWRS is a potentially useful screening device for the identification of hyperactive and withdrawn behavior in children. It is relatively simple to administer and contains a defined rating system. Further verification of the scale's reliability and validity are suggested.

REFERENCE:

Bell R, Waldrop M, Weller G: A rating system for the assessment of hyperactive and withdrawn children in preschool smaples. Amer J Orthopsychiatry 42: 23-33, 1972.

Parent-Teacher Questionnaire (Conners)

The Parent-Teacher Questionnaire (P-TQ) (see Table 3A) was developed by Conners in order to obtain repeated assessments of hyperactive behavior in children. It contains ten behavioral items and a final question which asks for the level of severity of the child's problem.

The P-TQ is a self-report which is completed by the parent or the teacher and is generally administered as a reassessment measure following psychopharmacological treatment. The full Parent Questionnaire or Teacher Questionnaire is the preferred instrument for initial assessment. The P-TQ is precoded and can be fully computerized. Ratings are made on a 4-point scale from 0 (not at all) to 3 (very much), depending on the level of the child's problem during the past week (or since the last rating). The age assessed by the P-TQ ranges from about 3 to 15 years.

Items on the P-TQ were selected from and overlap with the Parent Questionnaire and the Teacher Questionnaire. The items were found to be capable of discriminating hyperactive children from normal children and are sensitive to behavior changes following drug treatment. The P-TQ has been reported to correlate .94 with the hyperactivity factor of the Teacher Questionnaire and .92 with the mean of the other factors of the Teacher Questionnaire.

The P-TQ is an adequate instrument for use in repeated measures of hyperactive behavior in children. It is extremely brief and has demonstrated acceptable levels of reliability with its full scale counterparts. It provides a total score only, so that more detailed information on drug treatment changes cannot be ascertained. The investigator must weigh these costs against the time-saving benefits afforded by this instrument.

REFERENCES:

Conners CK: A teacher rating scale for use in drug studies with children. Am J Psychiatry 126: 884-888, 1969.

Conners CK: Symptom patterns in hyperkinetic, neurotic, and normal children. Child Develop. 41: 667-682, 1970.

Goyette CH, Conners CK, Ulrich RF: Normative data on revised Conners Parent and Teacher Rating Scales. J Abn Child Psychol 6: 221-236, 1978.

Hyperkinetic Rating Scale (Davids)

The Hyperkinetic Rating Scale (HRS) (see Table 3A) was developed by Davids in order to provide investigators with an objective procedure for assessing the traits and characteristics of hyperkinesis. It is designed as a research tool and is applicable for use in both screening and diagnostic studies.

The HRS is composed of seven items, six of which relate specifically to the hyperkinetic syndrome. The six hyperkinetic traits are: 1) Hyperactivity; 2) Short Attention Span and Poor Powers of Concentration; 3) Variability; 4) Impulsiveness and Inability to Delay Gratification; 5) Irritability; and 6) Explosiveness. The seventh item of the scale is Poor School Work, which is regarded as independent of the Hyperkinetic Syndrome and need not be rated by individuals unfamiliar with the child's academic performance. The informant may be the teacher, parent, or other professional in a position to observe the child. Items are rated on a 6-point scale from "much less than most children" to "much more than most children." The observer is asked to rate the child for the past two weeks in comparison with the behavior displayed by other normal children. Completion time is not specified but can be expected to be approximately five minutes.

The HRS is scored by summing the ratings on the six hyperkinetic items. Total scores of 24 or more are considered indicative of hyperkinesis while scores ranging from 19 to 24 are regarded as suspicious. The scale has been used as a pre- and post-measure of efficacy in drug treatment studies. Teacher ratings of the HRS were compared with teacher ratings on the Conners Parent-Teacher Questionnaire, in a drug response study. Both scales were able to discern similar behavior response patterns in this study, suggesting some concurrent validity for the HRS.

The HRS appears to be a useful screening instrument for the identification of hyperkinetic children. It has also proven to be a sensitive tool for assessing behavior change in drug treatment outcome studies. Normative data and reliability and validity information are not yet adequate, but the necessary research appears to be underway.

REFERENCES:

Arnold E, Huestis R, Smeltzer P, Scheib J, Wemmer D, Colner G: Levoamphetamine versus dextroamphetamine in minimal brain dysfunction (replication, time response, and differential effect by diagnostic groups and family rating). Arch Gen Psychiatry 33: 292-301, 1976.

Davids A: An objective instrument for assessing hyperkinesis in children. J Learning Disabilities 4: 35-37, 1971.

Davids A: Personal communication, 1979.

Manifest Anxiety Scale—Children's Form (Castaneda, McCandless & Palermo)

The Manifest Anxiety Scale—Children's Form (MAS-C) (see Table 3B) was designed by Castaneda, McCandless and Palermo to screen for anxiety symptoms in children (grades 4 to 6). The scale is actually a modification and adaptation of the Manifest Anxiety Scale (for adults) developed by Taylor. The feasibility of the scale for use with children was then tested (with 60 subjects) and a final version of the MAS-C was developed.

The MAS-C consists of 42 questions about anxiety and 11 additional questions that make up a "lie" scale. This format was based on the adult version which also assessed respondents' tendencies to falsify answers. The scale is a self-report that takes about 19 minutes to complete and may be administered and supervised by an untrained individual. A dichotomous response choice of true/false is offered. The child is the informant. The level of anxiety is assessed by summing the number of "true" responses. The 11 items of the "lie" scale are integrated into the questionnaire and are also to be answered either "true" or "false." The "lie" score is then obtained by summing these items.

Normative data for this scale was obtained from 386 fourth, fifth, and sixth grade children, derived from four different schools. The results revealed that girls received higher anxiety scores than boys. There was no interaction between age, sex, and grade. Results for the "lie" scale revealed the same pattern of response as the anxiety scale, i.e., there is a tendency for girls to have a higher "lie" score than boys. The results of the "lie" scale suggest that a subject's tendency to falsify his/her responses may be reflected in high or low "lie" scores. Intercorrelations between the "lie" scale and anxiety scale cluster around zero. Some of the differences found in the "lie" scores are attributed to age, since there was a tendency for sixth grade girls to have lower scores.

The MAS-C was administered at two sessions, separated by one week, to obtain reliability data. Test-retest reliabilities demonstrate relatively stable anxiety responses over time. Retest correlation coefficients for the anxiety items range from .70 to .94 when reported by sex and grade. Retest correlation coefficients for the "lie" scale demonstrate correlations of .61 to .85, when reported by sex and grade.

The MAS-C appears to be an efficient and easy-to-use scale for assessing anxiety in children. The authors suggest that the scale demonstrates content validity since the distribution of responses for the normative sample is comparable to that obtained from the adult version. They report that the scale is a reliable instrument for assessing anxiety. The scale has been used extensively as a measure of anxiety in school-aged children and has demonstrated some ability to differentiate among emotionally ill and normal children.

REFERENCES:

Castaneda A, McCandless B, Palermo D: The children's form of the manifest anxiety scale. Child Develop 27: 317-326, 1956.

Castaneda A, Palermo DS, McCandless B: Complex learning and performance as a function of anxiety in children and task difficulty. Child Develop 27: 327-332, 1956.

Cowen EL, Zax M, Izzo LD, Throst MA: Prevention of emotional disorders in the school setting: A further investigation. J Consult Psychol 30: 381-387, 1966.

McCandless B, Castaneda A: Anxiety in children, school achievement, and intelligence quotient. Child Develop 27: 378-382, 1956.

Children's Affective Rating Scale (Cytryn & McKnew)

The Children's Affective Rating Scale (CARS) (see Table 3B) was developed by Cytryn and McKnew as a means of evaluating the children of parents with a bipolar or unipolar affective disorder. The rating scale is completed by trained professionals who have either conducted or observed a structured psychiacric interview with the child. Areas of functioning covered in the psychiatric interview include: school, friends, activities, family, fears and anxieties, worries and concerns, self-image mood, physical complaints, acting out, reality testing, and fantasy. The CARS is composed of three subscales, mood and behavior, verbal expression and fantasy. The child is rated from 0 to 9 on each of the three subscales.

Thirty children (16 girls and 14 boys) between the ages of 5 and 15 years were evaluated. While being interviewed, each child was also observed through a one-way screen by three additional raters. Agreement between the interview and two of the observers for the subscales of the CARS ranged from .71 to .95. The correlation between the CARS and the Children's Psychiatric Rating Scale (also completed by the same raters) was .77.

The CARS is in the initial stages of instrument development. The form is not precoded and the individual ratings are only globally defined. No information is provided on the time perspective that the interview addresses, and the instrument has not yet met adequate psychometric requirements.

REFERENCE:

McKnew DH, Cytryn L, Efron AM, Gershon ES, Bunney WE: Offspring of patients with affective disorders. Brit J Psychiatry 134: 148-152, 1979.

Children's Depression Inventory (Kovacs, et al.)

The Children's Depression Inventory (CDI) (see Table 3B) was developed by Kovacs, et al. as a tool for measuring overall severity of depression in children. It was based on the Beck Depression Inventory which is a depression rating scale used with adults.

The CDI is designed primarily as a screening instrument and is administered as a self-report to children between the ages of 8 and 13 years. For younger children or children with reading difficulties, the interviewer reads the items with the child. Children are asked to select one sentence out of three which best describes them during the past two weeks. There are a total of 27 sets of items on a precoded form. Scores range from zero to fifty-four; the higher the score the greater the severity of disturbance.

The CDI was administered to 35 clinic and 20 nonclinic children between the ages of 8 and 13 years. Analysis of these data yielded an internal consistency coefficient of .85 for the clinic children and .78 for the nonclinic children, with most of the item intercorrelations reaching statistical significance. Mean CDI scores for clinic children were higher than for nonclinic children, but discrimination between the two populations could not yet be considered adequate. Comparison of the CDI with clinical ratings of depression yielded a correlation of .55. The CDI did not correlate well with a parent questionnaire (.20), suggesting the need for further refinement. Preliminary data on a Canadian sample of over 800 children yielded a mean score of 9.7 and a mode of 7.0. On the basis of these data, the author suggested a cut-off of 19 or more be used to determine severe depression, and a score of 10 or more should be considered indicative of mild depression or psychopathology.

The CDI is a brief screening tool for assessing depressive symptomatology in children. Initial attempts to obtain reliability and validity data have been acceptable and some normative data are now available. This instrument is still preliminary, however, and will require further testing.

REFERENCE:

Kovacs M, Betof NG, Celebre JE, Manshum PA, Petty LK, Raynak JT: Childhood depression: Myth or clinical syndrome? Unpublished manuscript.

Kovacs M: Personal communication, 1979.

Louisville Fear Survey for Children (Miller, Barrett, Hampe & Noble)

The Louisville Fear Survey for Children (LFSC) (see Table 3B) was designed by Miller, et al. to formulate and to determine the components of fear exhibited in children ages 4 through 18. The LFSC consists of 81 items which are rated on a 3-point scale ranging from "no fear observed" to "unrealistic or excessive fear." There are guidelines as to what constitutes a rating of "no fear" or an "unrealistic fear." The LFSC is a self-report. It can be completed in approximately 10 to 15 minutes. The informant may be parents, teachers, or children.

The LFSC was tested on 179 male and female children, aged 6 to 16 years. One hundred and one of these children were drawn from a nonclinic setting while the additional 78 children were clinic children who had been identified as phobic. Three factor dimensions were derived from 60 of the 81 fear items. Twenty-one of the fears of the LFSC were found to be rare and insufficient data prevented analysis of these items. Fear of physical injury, fear of natural or supernatural danger, and fear of physical stress are the three factor dimensions. The three factors were found to be age-related. Fear of nature was found to decrease with age, while fear of physical injury and fear of physical stress were more likely to exist at an early age and continue into adulthood.

The fear survey appears to be a viable screening and information-obtaining instrument. Reliability data were not reported, however. There is some question as to who is the best informant about subjective fears, the parent or the child. There is also some need to further operationalize behaviors which are indicative of fear so that parents can rate behavioral equivalents of children's subjective feelings. More data collection is needed to further evaluate this scale.

REFERENCES:

Miller L, Barrett C, Hampe E, Noble H: Factor structure of childhood fears. J Consult Clin Psychol 34: 264-268, 1972.

Miller L: Method factors associated with assessment of child behavior: Fact or artifact? J Abn Child Psychol 14: 209-219, 1976.

Miller L, Hampe E, Barrett C, Noble H: Children's deviant behavior within the general population. J Consult Clin Psychol 37: 16-22, 1971.

Miller L: Louisville behavior checklist for males 6-12 years of age. Psychol Rep 21: 885-896, 1967.

Miller L: Social behavior checklist: An inventory of deviant behavior for elementary school children. J Consult Clin Psychol 22: 134-144, 1972.

Ross A, Lacey HM, Parton D: The development of a behavior checklist for boys. Child Develop 36: 1013-1027, 1965.

SECTION 5. BRIEF REPORTS OF MISCELLANEOUS SCALES

Instruments by Cohen, et al.

The Child Personality Scale (CPS) (described in Section 3. General Psychopathology Checklists of this report) has been used in conjunction with the Parent Report (PR), the Behavior Problems Scale (BP), the Twin-Development (TD), the Pregnancy, Delivery, and First Month of Life Scale (PDF) and the Recent Family Changes Scale (RFC). These scales are not reviewed in detail because they are not designed to assess psychopathology in children. Rather, they are instruments which may be used as additional information-gathering tools in child behavior research. However, because these scales may be of interest to some investigators, they will be described briefly.

Parent Report. The PR is a 48-item self-report which assesses 16 categories of parenting behavior (8 socially desirable categories, 8 socially undesirable categories). Parents (mothers and/or fathers) rate their behavior regarding their children on a 7-point scale from 0 (never how I am) to 6 (always how I am). A similar rating is made for each item on "how the ideal parent would be."

The PR also has been factor analyzed. Less reliable items were eliminated and a 20-item factor scale form was developed. The form is precoded and can be computer scored.

Behavior Problems. The BP scale consists of 156 items describing problems children might have. It is a self-report to be completed by the parent(s) or the parent surrogate(s). Children are rated on a 4-point scale from 0 (not at all) to 3 (very much) as to whether they have had the problem.

The BP scale is divided into six sections. The first section contains 29 items and is completed for all children. The second section contains 36 items and is completed for children over the age of 24 months. Section 3 contains 23 items and is completed for children over the age of 36 months. Section 4 contains 33 items and is completed for children over the age of 48 months. Section 5 contains 35 items and is completed for children over the age of 60 months. Section 6 is completed for all children and asks the parent to list and rate the seriousness of the child's problems not previously mentioned.

The BP scale was apparently derived for use in twin-studies since it asks that ratings be made for the first and second born twin. Unfortunately no data are reported on the BP scale and no information on reliability or validity testing was found. In addition, assignment of items to the age specific section on the scale was not made with a readily apparent rationale. This scale can only be considered in preliminary stages of development, pending further information on its usefulness.

Twin Development during the First Years of Life. The TD Questionnaire asks parents to compare their twin-children and rate the level of difference between them on items such as general health, sleep, activities, and the like. Ratings are made on children from birth to 12 months, 13 months to 24 months, and 2 to 6 years. The TD is a self-report and asks for retrospective behavior ratings. No information on the reliability or validity of this form is available.

Pregnancy, Delivery and First Month of Life. The PDF is an information-gathering form. It is a self-report to be completed by the mother. The first 12 questions ask for details about the index pregnancy such as length of gestation, specific problems, medications used, etc. Questions 13-25 ask for information about delivery and birth complications. Questions 26-32 refer to the child's first month of life and deal with the general health, attentiveness, and development of the child (or twins).

Recent Family Changes. The RFC asks parents about events that are assumed to have an effect on the lives of the respondents and their children. It is a self-report which asks about "recent" changes. Questions refer to family moves, losses, divorce, problems with money, illness and the like. The RFC also assesses the respondent's perception regarding his/her current adjustment and functioning as well as the perceived adjustment of the spouse and children.

Factor analysis of the RFC yielded the following five dimensions: 1) Family Problems; 2) Stress and Coping of Twins; 3) Family Health for Parents and Twins; 4) Parental Stress and Coping, and 5) External or Environmental Problems.

Early Clinical Drug Evaluation Unit (ECDEU) Scales

The Children's Symptom History (CSH) and the Children's Psychiatric Rating Scale (CPRS) are mentioned because of their potential interest to investigators, particularly those concerned with psychopharmacological research in children. As they have already been discussed in some detail in the ECDEU Assessment Manual for Psychopharmacology (1976), there seemed no need to review them in this presentation.

Teacher Affect Rating Scale (Petti)

The Teacher Affect Rating Scale (TARS) was devised by Petti to assess change in classroom behavior as a function of pharmacological or behavioral intervention. It is composed of 26 items rated on a scale from 0 (not at all) to 3 (very much). The instrument is completed by teachers on the basis of the child's behavior during the past week.

The TARS was factor analyzed and yielded three factors as follows: Factor 1, the Behavior Factor, consists of items 3, 5, 9, 15, 16, 17, 18, 20, and 23; Factor 2, the Learning Factor, consists of items 1, 2, 6, 10, 22, and 26; Factor 3, the Depression Factor, consists of items 4, 11, 12, 13, 15, and 25. Test-retest reliability was .70 for Factor 1, .67 for Factor 2, and .69 for Factor 3.

The TARS is still in its developmental stages and may be a useful tool for assessing behavior change when completed.

REFERENCE:

Petti PA: Personal communication, 1978.

References

Achenbach T: The child behavior profile: An empirically based system for assessing children's behavioral problems and competencies. Interntl J Mental Health, in press.

Achenbach T: The child behavior profile. I. Boys aged 6-11. J Consult Clin Psychol 46: 478-488, 1978a.

Achenbach T, Edelbrock CS: The child behavior profile. II. Boys aged 12-16 and girls aged 6-11 and 12-16. J Consult Clin Psychol, in press.

American Psychiatric Association: Diagnostic and Statistical Manual of Mental Disorders - 3rd Edition (DSM III). Washington D.C. In press.

Arnold E, Huestis R, Smeltzer P, Scheib J, Wemmer D, Colner G: Levoamphetamine versus dextroamphetamine in minimal brain dysfunction (replication, time response, and differential effect by diagnostic groups and family rating). Arch Gen Psychiatry 33: 292-301, 1976.

Arnold LE, Smeltzer DI: Behavior checklist factor analysis for children and adolescents. Arch Gen Psychiatry 30: 799-804, 1974.

Bell R, Waldrop M, Weller G: A rating system for the assessment of hyperactive and withdrawn children in preschool samples. Amer J Orthopsychiatry 42: 23-33, 1972.

Bird HR: Personal communication, 1979.

Borgatta EF, Fanshel D: The child behavior characteristics (CBC) form: Revised age-specific forms. Multivariate Behavioral Research 5: 49-82, 1970.

Burdock E, Hardesty A: A children's behavior diagnostic inventory. Annals New York Academy of Sciences: 105 890-896, 1964.

Castaneda A, McCandless B, Palermo D: The children's form of the manifest anxiety scale. Child Develop 27: 317-326, 1956.

Castaneda A, Palermo DS, McCandless B: Complex learning and performance as a function of anxiety in children and task difficulty. Child Develop 27: 327-332, 1956.

Chambers WJ, Puig-Antich J, Tabrizi MA: The ongoing development of the Kiddie-SADS. Unpublished manuscript.

Children's Assessment Package: A Psychosocial Evaluation Procedure for Child and Family Mental Health Services (CAP). Yale University School of Medicine and Hill Health Center, New Haven, Connecticut. Copywright, January, 1977.

Conners CK: A teacher rating scale for use in drug studies with children. Am J Psychiatry 126: 884-888, 1969.

Conners CK: Symptom patterns in hyperkinetic, neurotic, and normal children. Child Develop 41: 667-682, 1970.

Cohen DJ, Dibble E: Father's and Mother's perceptions of children's personlity. Arch Gen Psychiatry 34: 480-487, 1977a.

Cohen, DJ, Dibble E: Parental style. Arch Gen Psychiatry 34: 445-451, 1977b.

Cowen E, Darwin D, Orgel A: Interrelations among screening measures for early detection of school dysfunction. Psychology in the Schools 8: 135-139, 1971.

Cowen E, Huser J, Beach D, Rappaport J: Parental perceptions of young children and their relation to indices of adjustment. J Consult Clin Psychol 34: 97-103, 1969.

Cowen E, Zax M, Izzo L, Trost M: Prevention of emotional disorders in the school setting: A further investigation. J Consult Psychol 30: 381-387, 1966.

Cytrynbaum S, Snow D, Phillips E, Goldblatt P, Tischler G: Program analysis and community mental health services for children, in Sankar S (ed): Mental Health in Children 3: 661-697. PJD Publications, New York, 1976.

Davids A: An objective instrument for assessing hyperkinesis in children. J Learning Disabilities 4: 35-37, 1971.

Davids A: Personal communication, 1979.

Dibble E, Cohen DJ: Companion instruments for measuring children's competence and parental style. Arch Gen Psychiatry 30: 805-815, 1974.

Dibble E, Cohen DJ: Biological endowment, early experience, and psychosocial influences on child behavior: A twin study. Paper presented at the 9th Congress of the International Association for Child Psychiatry and Allied Professions. Melbourne, Australia, 1978.

Gersten JC, Langner TS, Eisenberg JG, Simcha-Fagan D, McCarthy ED: Stability and change in types of behavioral disturbance of children and adolescents. J Abn Child Psychol 4: 111-127, 1976.

Gleser G, Seligman R, Winget C, Rauh JL: Adolescents view their mental health. J Youth Adolescence 6: 249-263, 1977.

Gleser G, Seligman R, Winget C, Rauh JL: Parents view their adolescents' mental health. Unpublished manuscript.

Goyette CH, Conners CK, Ulrich RF: Normative data on revised Conners' Parent and Teacher Rating Scales. J Abn Child Psychol 6: 221-236, 1978.

Greene EL, Langner TS, Herson JH, Jameson JD, Eisenberg JC, McCarthy ED: Some methods of evaluating behavioral variations in children 6 to 18. J Amer Acad Child Psychiat 12: 531-553, 1973.

Guy W (ed): ECDEU Assessment Manual for Psychopharmacology. US DHEW Publication No. (ADM) 76-338, National Institute of Mental Health, Rockville Maryland 20857 (revised 1976).

Herjanic B, Herjanic M, Brown F, Wheatt T: Are children reliable reporters? J Abn Child Psychol 3: 41-48, 1975.

Herjanic B, Campbell W: Differentiating psychiatrically disturbed children on the basis of a structured interview. Unpublished manuscript.

Herjanic B: Personal communication, 1979.

Heyneman SP, Mintz PC: The frequency and quality of measures utilized in federally-sponsored research on children and adolescents. Amer Educational Res J 14: 99-113, 1977.

Irenton H, Thwing E: The Minnesota child development inventory in the psychiatric development evaluation of the preschool age child. Child Psychiatry and Human Development 3: 102-114, 1972.

Katz M: Personal communication, 1979.

Kestenbaum CJ, Bird HR: A reliability study of the mental health assessment form for shcool age children. J Amer Acad Child Psychiat 17 (Spring): 338-347, 1978.

Kestenbaum CJ, Bird HR: The mental health assessment form: An instrument for the assessment of the latency age child--interrater reliability study. Unpublished manuscript.

Kohn M, Rosman B: A two factor model for emotional disturbance in the young child: Validity and screening efficacy. J Child Psychol Psychiatry 14: 31-56, 1973.

Kolvin RF, Garside R, Nicol AR, Leitch I, MacMillan A: Screening school children for high-risk of emotional and educational disorder. Brit J Psychiatry 131: 192-206, 1977.

Kovacs M, Betof NG, Celebre JE, Mansheim PA, Petty LK, Raynak JT: Childhood depression: Myth of clinical syndrome? Unpublished manuscript.

Kovacs M: Personal communication, 1979.

Langner TS, Gersten JC, McCarthy ED, Eisenberg JG, Greene EL, Herson JH, Jameson JD: A screening inventory for assessing psychiatric impairment in children 6 to 18. J Consult Clin Psychol 44: 286-296, 1976.

Maguire MS: A self-inventory scale of adolescent symptomatology based on Devereux adolescent behavior scale. Adolescence 8: 277-284, 1973.

McCandless B, Castaneda A: Anxiety in children, school achievement, and intelligence quotient. Child Develop 27: 378-382, 1956.

McKnew DH, Cytryn L, Efron AM, Gershon ES, Bunney WE: Offspring of patients with affective disorders. Brit J Psychiatry 134: 148-152, 1979.

Miller L: Louisville behavior checklist for males 6-12 years of age. Psychol Rep 21: 885-896, 1967.

Miller L, Hampe E, Barrett C, Noble H: Children's deviant behavior within the general population. J Consult Clin Psychol 37: 16-22, 1971.

Miller L: Social behavior checklist: An inventory of deviant behavior for elementary school children. J Consult Clin Psychol 22: 134-144, 1972.

Miller L, Barrett C, Hampe E, Noble H: Factor structure of childhood fears. J Consult Clin Psychol 34: 264-268, 1972.

Miller L: Method factors associated with assessment of child behavior: Fact or artifact? J Abn Child Psychol 14: 209-219, 1976.

Miller L: Personal communication, 1979.

Petti PA: Personal communication, 1978.

Puig-Antich J: Personal communication, 1979.

Puig-Antich J, Blau S, Marz N, Greenhill LL, Chambers W: Prepubertal major depressive disorders: A Pilot Study. J Amer Acad Child Psychiat. In press.

Quay HC: Measuring dimemsions of deviant behavior: The behavior problem checklist. J Abn Child Psychol 5: 277-287, 1977.

Richman M, Graham P: A behavioral screening questionnaire for use with three year old children. Preliminary findings. J Child Psychol. Psychiat 12: 5-33, 1971.

Richman M: Is a behavior checklist for preschool children useful? In Graham PJ (ed): Epidemiological Approaches in Child Psychiatry. Academic Press, New York, 1977, pp 125-137.

Richman M: Short-term outcome of behavior problems in three year old children. In Graham PJ (ed): Epidemiological Approaches in Child Psychiatry. Academic Press, New York, 1977, pp 165-179.

Ross A, Lacey HM, Parton D: The development of a behavior checklist for boys. Child Development 36: 1013-1027, 1965.

Reinherz H, Kelfer D: Identifying preschool children at risk. National Institute of Mental Health Progress Report, September 23, 1976 to June 30, 1977, NIMH Grant #R01 MH27458-02.

Reinherz H, Kelfer D, Griffin C, Holloway S: Developing a tool for assessing social-emotional functioning of preschool children. Presented at Annual Meeting of American Association of Psychiatric Services for Children, Washington, D.C., November 19, 1977.

Reinherz H: Personal communication, 1979.

Rutter M: Classification and categorization in child psychiatry. J Child Psychol Psychiat 6: 71-83, 1965.

Rutter M: A children's behavioral questionnaire for completion by teachers: Preliminary findings. J Child Psychol Psychiat 8: 1-11, 1967.

Rutter M, Graham P: The reliability and validity of the psychiatric assessment of the child. I. Interview with the child. Brit J Psychiatry 114: 563-579, 1968.

Schaefer CE, Millman HL: The use of behavior ratings in assessing the effect of residential treatment with latency age boys, Child Psychiatry and Human Development 3: 157-164, 1973.

Spivack G, Haimes PE, Spotts J: Devereux adolescent behavior scale manual. Devereux Foundation, Devon, Pa., 1967.

Spivack G, Levine M: The Devereux child behavior rating scales: A study of symptom behaviors in latency age atypical children. Amer J Ment Defic 68: 700-717, 1964.

Spivack G, Spotts J: Devereux child behavior rating scale manual. Devereux Foundation, Devon, Pa., 1966.

Spivack G, Spotts J: Adolescent symptomatology. Amer J Ment Defic 72: 74-95, 1967.

Spivack G, Swift MS: Devereux elementary school behavior rating scale manual. Devereux Foundation, Devon, Pa., 1967.

Weery JS, Quay HC: The prevalence of behavior symptoms in younger elementary school children. Amer J Orthopsychiat 41: 136-143, 1971.

Zax M, Cowen E, Rappoport J, Beach D, Laird J: Follow-up study of children identified early as emotionally disturbed. J Consult Clin Psychol 32: 369-374, 1968.

Zimmermann-Tansella C, Minghetti S, Tacconi A, Tansella M: The children's behavior questionnaire for completion by teachers in an Italian sample: Preliminary results. J Child Psychol Psychiat 19: 167-173, 1978.

TABLE 1A. CHARACTERISTICS OF ASSESSMENT INSTRUMENTS

PSYCHIATRIC INTERVIEWS

	DICA Herjanic and Welner	PI Herjanic and Welner	MHAF Kestenbaum and Bird	ISC Kovacs, et al.
PURPOSE:				
Diagnostic	X	X		X
Screening			X	
METHOD:				
Self-Report				
In-Person Interview				
Structured	X	X		X
Semi-Structured		X	X	
INFORMANT:				
Child	X		X	X
Parent (or Surrogate)		X		
Teacher (or School)				
Other (Records, clincians)				
SCALE PROPERTIES:				
Number of Items	About 200	About 100	About 180	About 37
Items: Defined (D)	D	D	D	D
Global (G)		G		
Time Period Assessed	Lifetime	Unclear	Unclear	Past 2 Weeks
Age Assessed	9-17 Years	6-16 Years	7-12 Years	8-13 Years
Completion Time	1 1/2 Hours	1 Hour	45 Minutes	35 Minutes
Forms: Precoded (P)	P		P	P
Uncoded (U)		U		
Scoring System	X	No	X	X
CONTENT:				
Interpersonal Functioning	X	X	X	X
School Functioning	X	X	X	X
Mood Disturbances	X	X	X	X
Psychosis	X		X	X
Anxiety	X	X	X	
Phobias/Fears	X	X	X	X
Obsessive/Compulsive	X	X	X	X
Conduct Disorder	X	X	X	X
Hyperactivity/Attention		X	X	
Drug/Alcohol Abuse	X	X		X
Delusions/Hallucinations	X	X	X	X
Enuresis/Encopresis	X	X		X
Somatic Concerns	X	X		X
PSYCHOMETRIC PROPERTIES:				
Reliability	X	X	X	X
Validity	No	No	No	X

TABLE 1B. CHARACTERISTICS OF ASSESSMENT INSTRUMENTS

PSYCHIATRIC INTERVIEWS

	SI Langner, et al.	K-SADS Puig-Antich and Chambers	BSQ Richman and Graham	IWS Rutter and Graham
PURPOSE:				
Diagnostic		X		X
Screening	X		X	
METHOD:				
Self-Report				
In-Person Interview	X	X		
Structured			X	X
Semi-Structured				
INFORMANT:				
Child	X	X		X
Parent (or Surrogate)	X	X	X	
Teacher (or School)				
Other (Records, clincians)				
SCALE PROPERTIES:				
Number of Items	83	About 100	12	About 100
Items: Defined (D)	D	D	D	D
Global (G)				G
Time Period Assessed	Current	Past Month	Past 4 Weeks	Unclear
Age Assessed	6-18 Years	6-16 Years	Preschoolers	7-12 Years
Completion Time	20 Minutes	1 1/2 Hours	10 Minutes	30 Minutes
Forms: Precoded (P)	P	P	P	P
Uncoded (U)				
Scoring System	X	X	X	Unknown
CONTENT:				
Interpersonal Functioning	X	X	X	X
School Functioning	X	X		X
Mood Disturbances	X	X	X	X
Psychosis		X		
Anxiety	X	X	X	X
Phobias/Fears		X	X	X
Obsessive/Compulsive		X		X
Conduct Disorder	X	X		X
Hyperactivity/Attention	X		X	X
Drug/Alcohol Abuse		X		
Delusions/Hallucinations		X		X
Enuresis/Encopresis			X	
Somatic Concerns	X	X		X
PSYCHOMETRIC PROPERTIES:				
Reliability	X	X	X	X
Validity	X	No	X	X

TABLE 2A. CHARACTERISTICS OF ASSESSMENT INSTRUMENTS

GENERAL PSYCHOPATHOLOGY SCALES

	CBCL Achenbach	CBC-P Arnold and Smeltzer	CBCS* Borgatta and Fanshel	CBDI* Burdock and Hardesty
PURPOSE:				
Diagnostic				
Screening	X	X	X	X
METHOD:				
Self-Report	X	X	X	X
In-Person Interview				
Structured				
Semi-Structured				
INFORMANT:				
Child				
Parent (or Surrogate)	X	X	X	
Teacher (or School)			X	X
Other (Records, clincians)			X	X
SCALE PROPERTIES:				
Number of Items	130	74	115	137
Items: Defined (D)	D	D	D	D
Global (G)				
Time Period Assessed	Past 12 Months	Not Stated	Past 3 Months	Not Stated
Age Assessed	4-16 Years	2-18 Years	Birth-17 Years	1-12 Years
Completion Time	17 Minutes	Not Stated	Not Stated	Not Stated
Forms: Precoded (P)	P		Unknown	Unknown
Uncoded (U)		U		
Scoring System	X	X	X	X
CONTENT:				
Interpersonal Functioning	X		X	X
School Functioning	X	X	X	
Mood Disturbances	X	X		X
Psychosis	X			
Anxiety	X		X	
Phobias/Fears	X	X		
Obsessive/Compulsive	X	X		
Conduct Disorder	X	X	X	
Hyperactivity/Attention	X	X	X	X
Drug/Alcohol Abuse	X			
Delusions/Hallucinations	X			
Enuresis/Encopresis	X	X		
Somatic Concerns	X	X		
PSYCHOMETRIC PROPERTIES:				
Reliability	X	No	X	X
Validity	X	No	No	X

*Detailed information on content is lacking, since scale was not obtained in time for report.

TABLE 2B. CHARACTERISTICS OF ASSESSMENT INSTRUMENTS
GENERAL PSYCHOPATHOLOGY SCALES

	CPS Cohen, et al.	PQ Conners	TQ Conners	TBRS Cowen
PURPOSE:				
Diagnostic				
Screening	X	X	X	X
METHOD:				
Self-Report	X	X	X	X
In-Person Interview				
Structured				
Semi-Structured				
INFORMANT:				
Child				
Parent (or Surrogate)	X	X		
Teacher (or School)			X	X
Other (Records, clincians)				
SCALE PROPERTIES:				
Number of Items	48	94	41	25
Items: Defined (D)	D	D	D	D
Global (G)				
Time Period Assessed	Past 2 Months	Past Month	Past Week	Not Stated
Age Assessed	Preschool	3-17 Years	6-15 Years	6-12 Years
Completion Time	Not Stated	15 Minutes	10 Minutes	10 Minutes
Forms: Precoded (P)	P	P	P	
Uncoded (U)				U
Scoring System	X	X	X	X
CONTENT:				
Interpersonal Functioning	X	X	X	X
School Functioning			X	X
Mood Disturbances			X	X
Psychosis				
Anxiety		X		X
Phobias/Fears	X	X		X
Obsessive/Compulsive		X		
Conduct Disorder		X	X	
Hyperactivity/Attention	X	X	X	X
Drug/Alcohol Abuse				
Delusions/Hallucinations				
Enuresis/Encopresis		X		
Somatic Concerns		X		
PSYCHOMETRIC PROPERTIES:				
Reliability	X	X	X	X
Validity	No	X	X	X

TABLE 2C. CHARACTERISTICS OF ASSESSMENT INSTRUMENTS

GENERAL PSYCHOPATHOLOGY SCALES

	CAP Cytrynbaum and Snow	ALAC Gleser, et al.	MCDI* Ireton and Thwing	SCL* Kohn and Rosman
PURPOSE:				
Diagnostic				
Screening	X	X	X	X
METHOD:				
Self-Report	X	X	X	X
In-Person Interview				
Structured				
Semi-Structured	X			
INFORMANT:				
Child	X	X		
Parent (or Surrogate)	X	X	X	
Teacher (or School)	X			X
Other (Records, clincians)	X			
SCALE PROPERTIES:				
Number of Items	About 287	40	320	58
Items: Defined (D)	D	D	D	D
Global (G)	G			
Time Period Assessed	Unclear&Variable	Recent Weeks	Not Stated	Not Stated
Age Assessed	Not Stated	11-19 Years	6 Mos.-6½ Yrs.	3-6 Years
Completion Time	Not Stated	Not Stated	45 Minutes	Not Stated
Forms: Precoded (P)		P		Unknown
Uncoded (U)	U			
Scoring System	Unknown	X	X	X
CONTENT:				
Interpersonal Functioning	X	X	X	X
School Functioning	X	X		
Mood Disturbances	X	X		
Psychosis				
Anxiety	X	X		
Phobias/Fears	X	X		
Obsessive/Compulsive	X			
Conduct Disorder	X	X		
Hyperactivity/Attention				
Drug/Alcohol Abuse		X		
Delusions/Hallucinations				
Enuresis/Encopresis		X		
Somatic Concerns		X		
PSYCHOMETRIC PROPERTIES:				
Reliability	No	X	X	X
Validity	No	X	No	X

*Detailed information on content is lacking, since scale was not obtained in time for report.

TABLE 2D. CHARACTERISTICS OF ASSESSMENT INSTRUMENTS

GENERAL PSYCHOPATHOLOGY SCALES

	LBCL Miller	SBCL Miller	BPC Quay and Peterson	QBC Reinherz and Kelfer
PURPOSE:				
Diagnostic				
Screening	X	X	X	X
METHOD:				
Self-Report	X	X	X	X
In-Person Interview				
Structured				
Semi-Structured				
INFORMANT:				
Child				
Parent (or Surrogate)	X		X	X
Teacher (or School)		X	X	X
Other (Records, clincians)			X	
SCALE PROPERTIES:				
Number of Items	164	96	55	38
Items: Defined (D)	D	D	D	D
Global (G)				
Time Period Assessed	Not Stated	Past 2 Months	Not Stated	Past 2 Months
Age Assessed	3-18 Years	3-13 Years	5-17 Years	4-5 Years
Completion Time	30 Minutes	20 Minutes	Not Stated	25 Minutes
Forms: Precoded (P)	P	P	P	P
Uncoded (U)				
Scoring System	X	X	X	X
CONTENT:				
Interpersonal Functioning	X	X		X
School Functioning	X	X		
Mood Disturbances	X	X	X	X
Psychosis				
Anxiety	X	X	X	X
Phobias/Fears	X			X
Obsessive/Compulsive				X
Conduct Disorder	X		X	
Hyperactivity/Attention	X	X	X	X
Drug/Alcohol Abuse	X			
Delusions/Hallucinations	X			
Enuresis/Encopresis	X		X	X
Somatic Concerns	X	X	X	X
PSYCHOMETRIC PROPERTIES:				
Reliability	X	X	X	X
Validity	X	No	X	No

TABLE 2E. CHARACTERISTICS OF ASSESSMENT INSTRUMENTS

GENERAL PSYCHOPATHOLOGY SCALES

	BCL Richman and Graham	CBQ-T Rutter	DESB Spivack and Swift	DCB Spivack and Swift
PURPOSE:				
Diagnostic				
Screening	X	X	X	X
METHOD:				
Self-Report	X	X	X	X
In-Person Interview				
Structured				
Semi-Structured				
INFORMANT:				
Child				
Parent (or Surrogate)	X			X
Teacher (or School)		X	X	X
Other (Records, clincians)				X
SCALE PROPERTIES:				
Number of Items	19	26	47	97
Items: Defined (D)	D	D	D	D
Global (G)				
Time Period Assessed	Past 4 Weeks	Past Year	Past Month	Past 2 Weeks
Age Assessed	Preschool	6-13 Years	5-12 Years	5-12 Years
Completion Time	Not Stated	Not Stated	Not Stated	15 Minutes
Forms: Precoded (P)	P	P	P	P
Uncoded (U)				
Scoring System	X	X	X	X
CONTENT:				
Interpersonal Functioning	X			X
School Functioning			X	
Mood Disturbances	X	X		X
Psychosis				
Anxiety	X			
Phobias/Fears	X	X		
Obsessive/Compulsive				X
Conduct Disorder		X	X	X
Hyperactivity/Attention	X	X		X
Drug/Alcohol Abuse				
Delusions/Hallucinations				X
Enuresis/Encopresis	X			
Somatic Concerns		X		
PSYCHOMETRIC PROPERTIES:				
Reliability	X	X	X	X
Validity	X	X	No	X

TABLE 2F. CHARACTERISTICS OF ASSESSMENT INSTRUMENTS

GENERAL PSYCHOPATHOLOGY SCALE

	DAB Spivack and Swift			
PURPOSE:				
Diagnostic				
Screening	X			
METHOD:				
Self-Report	X			
In-Person Interview				
Structured				
Semi-Structured				
INFORMANT:				
Child				
Parent (or Surrogate)				
Teacher (or School)				
Other (Records, clincians)	X			
SCALE PROPERTIES:				
Number of Items	84			
Items: Defined (D)	D			
Global (G)				
Time Period Assessed	Past 2 Weeks			
Age Assessed	13-18 Years			
Completion Time	15 Minutes			
Forms: Precoded (P)	P			
Uncoded (U)				
Scoring System	X			
CONTENT:				
Interpersonal Functioning	X			
School Functioning				
Mood Disturbances	X			
Psychosis	X			
Anxiety				
Phobias/Fears				
Obsessive/Compulsive	X			
Conduct Disorder	X			
Hyperactivity/Attention	X			
Drug/Alcohol Abuse				
Delusions/Hallucinations	X			
Enuresis/Encopresis				
Somatic Concerns				
PSYCHOMETRIC PROPERTIES:				
Reliability	X			
Validity	X			

TABLE 3A. CHARACTERISTICS OF ASSESSMENT INSTRUMENTS
SPECIFIC SYNDROME SCALES - HYPERACTIVITY

	HWRS Bell, et al.	P-TQ Conners	HRS Davids	
PURPOSE:				
Diagnostic				
Screening	X	X	X	
METHOD:				
Self-Report	X	X	X	
In-Person Interview				
Structured				
Semi-Structured				
INFORMANT:				
Child				
Parent (or Surrogate)		X	X	
Teacher (or School)	X	X	X	
Other (Records, clincians)	X		X	
SCALE PROPERTIES:				
Number of Items	9	10	7	
Items: Defined (D)	D	D	D	
Global (G)				
Time Period Assessed	Last Month	Past Week	Past 2 Weeks	
Age Assessed	Preschoolers	3-15 Years	Not Stated	
Completion Time	Not Stated	5 Minutes	Not Stated	
Forms: Precoded (P)	Unknown	P		
Uncoded (U)			U	
Scoring System	X	X	X	
CONTENT:				
Interpersonal Functioning				
School Functioning				
Mood Disturbances				
Psychosis				
Anxiety				
Phobias/Fears				
Obsessive/Compulsive				
Conduct Disorder				
Hyperactivity/Attention	X	X	X	
Drug/Alcohol Abuse				
Delusions/Hallucinations				
Enuresis/Encopresis				
Somatic Concerns				
PSYCHOMETRIC PROPERTIES:				
Reliability	X	X	No	
Validity	No	X	X	

TABLE 3B. CHARACTERISTICS OF ASSESSMENT INSTRUMENTS

SPECIFIC SYNDROME SCALES

	MAS-C Castaneda, et al.	CARS Cytryn and McKnew	CDI Kovacs	LFSC Miller
PURPOSE:				
Diagnostic				
Screening	X	X	X	X
METHOD:				
Self-Report	X		X	X
In-Person Interview				
Structured				
Semi-Structured		X		
INFORMANT:				
Child	X	X	X	X
Parent (or Surrogate)				X
Teacher (or School)				X
Other (Records, clincians)				
SCALE PROPERTIES:				
Number of Items	53	27	27	81
Items: Defined (D)	D	D	D	D
Global (G)				
Time Period Assessed	Not Stated	Unclear	Past 2 Weeks	Present
Age Assessed	9-12 Years	Not Stated	8-13 Years	4-18 Years
Completion Time	Not Stated	Not Stated	10 Minutes	10 Minutes
Forms: Precoded (P)			P	
Uncoded (U)	U	U		U
Scoring System	X	X	X	X
CONTENT:				
Interpersonal Functioning				
School Functioning				
Mood Disturbances		X	X	
Psychosis				
Anxiety	X			
Phobias/Fears				X
Obsessive/Compulsive				
Conduct Disorder				
Hyperactivity/Attention				
Drug/Alcohol Abuse				
Delusions/Hallucinations				
Enuresis/Encopresis				
Somatic Concerns			X	
PSYCHOMETRIC PROPERTIES:				
Reliability	X	X	X	No
Validity	X	No	X	No